

MILITARY MEDICINE: ONE PROFESSION NOT TWO

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE
Conflict, Security, and Development

by

ANASTASIA M. MCKAY, MAJ, US ARMY

B.S., United States Military Academy, West Point, New York, 2001

M.D., Uniformed Services University of the Health Sciences, Bethesda, Maryland, 2005

Fort Leavenworth, Kansas
2013-02

Approved for public release; distribution is unlimited.

REPORT DOCUMENTATION PAGE				<i>Form Approved</i> <i>OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.					
1. REPORT DATE (DD-MM-YYYY) 13-12-2013		2. REPORT TYPE Master's Thesis		3. DATES COVERED (From - To) FEB 2013 – DEC 2013	
4. TITLE AND SUBTITLE Military Medicine: One Profession, Not Two				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Major Anastasia M. McKay				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Command and General Staff College ATTN: ATZL-SWD-GD Fort Leavenworth, KS 66027-2301				8. PERFORMING ORG REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution is Unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT Medical professionals preserve life, and military professionals manage violence. What professional tensions arise for the military physician, who straddles these two professions? Since September 11th, scholars have approached military medicine as a mixed agency problem, suggesting tensions result because physicians hold competing loyalties between patients (soldiers) and their employer (the military). Moreover, the literature focuses on wartime tensions and proffers overly simplified algorithms or impractical solutions for their resolution. Using institutional analysis, I examine 35 scenarios, both peacetime and wartime, in terms of stakeholder interactions and the causal contexts in which they occur. This method reveals that the tensions military physicians encounter are not aberrations to be overcome or mitigated by privileging one profession's value over another in each specific case. On the contrary, these tensions compose the very heart of military medicine and the physician's professional domain. I argue, contra the mixed agency frame, that military medicine is a unique, independent profession.					
15. SUBJECT TERMS military medicine, dual loyalties, mixed agency, professional tensions, institutional analysis					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT (U)	18. NUMBER OF PAGES 185	19a. NAME OF RESPONSIBLE PERSON
a. REPORT (U)	b. ABSTRACT (U)	c. THIS PAGE (U)			19b. PHONE NUMBER (include area code)

MASTER OF MILITARY ART AND SCIENCE
THESIS APPROVAL PAGE

Name of Candidate: MAJ Anastasia M. McKay

Thesis Title: Military Medicine: One Profession, Not Two

Approved by:

_____, Thesis Committee Chair
LTC Celestino Perez, Ph.D.

_____, Member
MG William D. R. Waff, D.Min.

_____, Member
Bill J. McCollum, Ed.D.

Accepted this 13th day of December 2013 by:

_____, Director, Graduate Degree Programs
Robert F. Baumann, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

MILITARY MEDICINE: ONE PROFESSION, NOT TWO, by Major Anastasia M. McKay, 185 pages.

Medical professionals preserve life, and military professionals manage violence. What professional tensions arise for the military physician, who straddles these two professions? Since September 11th, scholars have approached military medicine as a mixed agency problem, suggesting tensions result because physicians hold competing loyalties between patients (soldiers) and their employer (the military). Moreover, the literature focuses on wartime tensions and proffers overly simplified algorithms or impractical solutions for their resolution. Using institutional analysis, I examine 35 scenarios, both peacetime and wartime, in terms of stakeholder interactions and the causal contexts in which they occur. This method reveals that the tensions military physicians encounter are not aberrations to be overcome or mitigated by privileging one profession's value over another in each specific case. On the contrary, these tensions compose the very heart of military medicine and the physician's professional domain. I argue, contra the mixed agency frame, that military medicine is a unique, independent profession.

ACKNOWLEDGMENTS

This thesis was a personal journey made possible by the support of many. I would like to thank my colleagues and previous supervisors who fueled debate regarding professional priorities for military physicians, expanding my interest in the topic. Timely discussion and contrasting opinions served as an impetus for this project. I would like to thank the Army Medical Department for allowing me the opportunity to attend the Command and General Staff College full time instead of through correspondence after work, further enabling and empowering me to explore this topic.

Recent scholarship has increased awareness of tensions in military medicine, stressing the importance of ethics education. Despite limitations of current research and proposed solutions, it offers a springboard of opportunity to expand awareness and continue discussion of an important subject. My contribution is not intended to eliminate all tensions in military medicine or dismiss the work of others, but rather to enhance current dialogue in understanding the system in which tensions occur. Reframing the employment of military physicians as an independent profession as opposed to agents working in competing professions may change how some tensions are viewed and improve our approach to alleviating tensions, or possibly, even embracing them. Of course, I do not insist that my proposal provides the final, irrefutable relationship between military medicine and professions. However, I do insist that the proposal bring to the fore important matters in a novel way.

I would like to thank staff group 2D and the Local Dynamics of War seminar for sharing my learning experiences and encouraging this project. I would like to thank the staff college board of directors and LTC Celestino Perez for the opportunity to participate

in the Local Dynamics of War seminar, which introduced diverse methods of approaching complex problems and enhanced my theoretical research skills.

Most importantly, I would like to thank my husband, Jock, for his enduring support during this assignment (and all others). Support at home improves ones ability to navigate through tensions at work.

TABLE OF CONTENTS

	Page
MASTER OF MILITARY ART AND SCIENCE THESIS APPROVAL PAGE	iii
ABSTRACT	iv
ACKNOWLEDGMENTS	v
TABLE OF CONTENTS	vii
ACRONYMS	x
ILLUSTRATIONS	xi
CHAPTER 1 INTRODUCTION	1
The Road Ahead	4
CHAPTER 2 LITERATURE REVIEW	6
Defining Professions	6
The Medical Profession	8
The Profession of Arms	9
Physicians in the Military	12
Mixed Agency	14
Currently Discussed Tensions in Military Medicine	16
Military Triage and Casualty Care	16
Battlefield Euthanasia	19
Medical Clearance for Duty	20
Interrogation and Torture	21
Weapons Development	22
Treatment of Homosexuals	24
Proposed Solutions for Mixed Agency Problems	24
Addressing the Mixed Agency Challenge	25
Mixed Agency Applicable, Values Commensurable, Rank Order	26
Dismissing Mixed Agency, One Side Not Applicable	28
Algorithmic Decision Making	30
What is Missing from Discussion?	33
Conclusion	34
CHAPTER 3 RESEARCH METHODOLOGY	36

Institutional Analysis	36
Applying the IAD Framework to Military Medicine.....	38
Conclusion	40
 CHAPTER 4 ANALYSIS	 41
The Contributing Context	41
Relationships in Military Medicine	47
Case Studies	50
Case 1: Cold Symptoms and Quarters	51
Case 2: Ankle Sprains and Fully Medically Ready	53
Case 3: Bunions and Surgery: Elective versus Necessary?	56
Case 4: Back Pain: Evaluation and Treatment.....	59
Case 5: Dislocating Shoulders	61
Case 6: Soldiers with Diabetes.....	63
Case 7: The Permanent Profile	65
Case 8: Making the MEB Referral.....	68
Case 9: Treatment After MEBs: Now What?	71
Case 10: Executive Medicine: Do Standards Change with Rank?	72
Case 11: Does Longevity Matter?.....	74
Case 12: Anorexia and Eating Disorders	76
Case 13: Profiles for Psychiatric Conditions	79
Case 14: The RESPECT-mil Program	83
Case 15: Psychiatric Problems and Job Limitations	86
Case 16: Moving Soldiers with Medical Problems.....	89
Case 17: Medical Clearance for Deployment	91
Case 18: Pregnancy While Deployed.....	96
Case 19: Pancreatitis and Alcohol	99
Case 20: Seizures While Deployed.....	104
Case 21: Surgery While Deployed.....	106
Case 22: Doctor-Patient Relationships While Deployed	109
Case 23: Triage and Mass-Casualty Scenarios	111
Case 24: Whole Blood Drives While Deployed	114
Case 25: Medical Standards by Job: Aviator versus Mechanic?	117
Case 26: Medication Availability and Use	119
Case 27: Medical Problems and Disciplinary Problems.....	123
Case 28: Playing the System.....	124
Case 29: Sexual Assault Forensic Examinations	127
Case 30: Medicine and Military Weight Standards	132
Case 31: Conflict Between Rank and Position	134
Case 32: Supervising More Experienced Personnel	136
Case 33: Choosing Medical Specialties	137
Case 34: Stewardship of the Profession.....	141
Case 35: Nidal Hasan.....	144
Conclusion	145

CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS	146
Summary of Tensions	146
Conclusions	148
Recommendations	150
GLOSSARY	154
APPENDIX A PRINCIPLES OF MEDICAL ETHICS	155
Preamble	155
Principles of Medical Ethics	155
APPENDIX B APPLYING ETHICAL PHILOSOPHY TO RESOLVE TENSIONS....	156
Principals Based Ethics–Deontological Ethics	156
Consequence Based Ethics–Utilitarianism	157
Virtue-Based Ethics	158
Just War Theory	159
Interrelationship of Ethical Theories	161
APPENDIX C ALGORITHM TO SOLVE CONFLICTS BETWEEN ETHICS AND THE LAW	163
APPENDIX D ARMY PROFILE FORM	164
APPENDIX E INDIVIDUAL SICK SLIP	166
REFERENCE LIST	167

ACRONYMS

AMA	American Medical Association
AMEDD	Army Medical Department
AR	Army regulation
ASAP	Army substance abuse program
CPG	Clinical practice guideline
FMR	Fully medically ready
FORSCOM	United States Army Forces Command
GMO	General medical officer
IAD	Institutional analysis and development
IDES	Integrated disability and evaluation system
MEB	Medical evaluation board
MEDCOM	United States Army Medical Command
MEDEVAC	Medical evacuation
MHS	Military health system
MRI	Magnetic resonance imaging
PA	Physician's assistant
PCOS	Polycystic ovarian syndrome
PTSD	Post-traumatic stress disorder
SAFE	Sexual Assault Forensic Examiner or Sexual Assault Forensic Examination
VA	Department of Veteran's Affairs

ILLUSTRATIONS

	Page
Figure 1. Military medical ethics decision making algorithm.....	31
Figure 2. Institutional Analysis Framework.....	37
Figure 3. Military Physician Relationships	47

CHAPTER 1

INTRODUCTION

[M]ilitary health professionals face unique conflicts. They must navigate their way between very different and sometimes antagonistic or even irreconcilable goals: on the one hand, to preserve life, attend to the sick, and reduce suffering (the obligation of the health professional), and on the other, to support killing and inflicting harm on the enemy (the obligation of military officer or soldier.)

— International Dual Loyalty Working Group, *Physicians at War*

Military physicians serve in two distinct professions: the profession of medicine and the profession of arms. Instinctively, these professions appear in conflict with each other. The profession of medicine specializes in preserving life with emphasis on avoiding harm to humans; the profession of arms specializes in managing violence and involves the destruction of human lives. What professional tensions arise for the military doctor, who straddles these two professions? Physicians have served militaries as long as militaries have fought wars with American military medicine having roots with the American Revolution.¹ However, exploring tensions military physicians face is a relatively new phenomenon.

Since September 11, scholars have increased dialogue concerning actions of military medical personnel using the concept of mixed agency to describe problems military physicians face. Scholars debate military medical actions on ethical grounds by comparing one profession and its corresponding ethos against the other with some declaring the two professions as being mutually exclusive. Others challenge the existence

¹The Continental Congress established the Army Hospital on 27 July 1775 with the mission to care for soldiers during the American Revolution. Initially, Congress only activated the military medical organization during war or other emergencies; however, by 1818 they established the Army Medical Department (AMEDD) as a permanent entity.

of mixed agency problems in military medicine altogether. Most contend that mixed agency problems exist and use mixed agency to explain the tensions military physicians experience. In attempts to reduce tensions created by professional incongruences, several scholars recommend hierarchies of professional obligations or rule-based algorithms to help guide military physicians in resolving mixed agency dilemmas. Algorithms typically imply some actions always take precedence over others. The vast majority of discussion revolves around wartime tensions including concepts of triage, torture, and weapons development with individual camps taking sides on the valuation of collective security versus individual rights and the precedence of one over the other. In many instances, questions are framed to create tensions from the onset.

The literature fails to adequately address common situations military physicians regularly experience, both in peace and at war, and the corresponding relationships and incentive structures creating tensions and influencing physicians' actions. Literature emphasizes problems inherent to the military physician as a dual professional, but it does not acknowledge similar tensions civilian physicians working for military institutions may face in caring for service members. Much of the active literature on this topic reduces military medicine to medical concepts applied to an environment revolving around violence while neglecting potential tensions during peacetime and how peacetime tensions may shape subsequent actions of military medical professionals during war. Current scholarship attempts to provide solutions to conceptual and real problems in military medicine before grasping the contextual understanding of the larger institutions and interlacing relationships that contribute to the problems in the first place.

This study examines professional tensions military physicians face while simultaneously serving two seemingly antagonistic professions. I use the institutional analysis and development (IAD) framework to examine 35 scenarios, both peacetime and wartime, in terms of stakeholder interactions and the causal contexts in which they occur. Institutional analysis allows systematic evaluation of various action situations in light of contributing contexts and perceived incentive structures that shape patterns of interaction, and it helps explain why individuals may choose one action over another. Understanding the context behind an action is as important as the action itself, especially if one desires a change in a particular pattern of behavior. Simply discussing the correctness of action choices outside of the context in which they occur achieves little in terms of solving the problem at hand. Rather, understanding the relationships between various stakeholders and competing incentive structures that influence actions and create tensions will aid in development of solutions directed at the source of tensions and may provide more viable solutions to current tensions in military medicine.

Exploration of the military health system (MHS) through the IAD framework reveals significant variety in tensions military physicians experience, which are complicated by individual experiences, attributes of their working environment, and other perceived realities. Tensions arise when a patient's desires conflict with assessed medical needs and military requirements, but incentive structures favor physicians to cater to the patient's subjective interests over objective medical interests or real military interests.²

Military regulations may conflict with accepted medical practices and create tensions.

²Subjective interests equate to an individual's stated preferences. Objective interests are the true interests of an individual, even though the individual might not think so. Real interests are defined by social norms (Isaac 1987, 25-26).

Organizational rules and procedures result in unintended consequences. Individual attitudes and expectations, driven by incentive structures, fuel feedback loops and exacerbate tensions between a system of stakeholders, all interested in a given situation's outcome. A pattern of complexity emerges with many more connections and interactions than previously acknowledged. This complexity suggests a one-size-fits-all approach may fail to resolve fundamental tensions military physicians experience. Some tensions may exist merely because situations are approached with a mixed agency mindset, thus creating a dichotomy that need not exist.

The complexity of tensions military physicians experience while balancing differences between the profession of medicine and the profession of arms suggests, contra the mixed agency frame, military medicine is a unique, independent profession. Perhaps recognizing and confronting tensions head-on is more important than trying to eliminate them altogether. Defining a single jurisdictional space for an independent profession of military medicine can refocus professional dialogue in a context that acknowledges the specialized expertise unique to the field while reducing tensions and unintended consequences created by placing one profession against the other.

The Road Ahead

This chapter introduced opposing themes in the military and medical professions and the concept of mixed agency, which is used to explain why tensions exist when individuals serve both professions simultaneously. I suggest scholars use the mixed agency frame to proffer solutions to tensions in military medicine without a true appreciation of what those tensions actually are. This prompts the question: "What

professional tensions arise for the military physician, who straddles the profession of medicine and the profession of arms?”

Chapter 2 reviews literature. It characterizes professions in terms of professional work, which is the application of abstract knowledge and establishes both medicine and the military as independent professions. It reviews the intersection of the military and medical professions and resulting tensions using a mixed agency frame. Finally, it reviews proposed solutions and suggests they insufficiently alleviate tensions because they fail to appreciate the full scope of tensions and the system in which they occur.

Chapter 3 discusses how this research will identify professional tensions experienced by military physicians. I review the IAD framework, which enables organized analysis of complex systems. This creates a foundation for systematic review of situations commonly experienced by military physicians and allows for structured identification of professional tensions resulting from actions in terms of the system in which they occur. Chapter 4 applies the IAD framework to 35 scenarios to identify tensions experienced by military physicians.

Chapter 5 summarizes the research and empirical tensions discovered through analysis. Using the identified tensions and associated complexity, I argue, contra the mixed agency frame, that military medicine is a unique, independent profession. I suggest that framing military medicine as a unique profession may eliminate several tensions aggravated by using a mixed agency frame. However, reframing military medicine as a unique profession brings policy implications, which could require significant restructuring of the MHS.

CHAPTER 2

LITERATURE REVIEW

The primary research question is: What professional tensions arise for the military physician, who straddles the profession of medicine and the profession of arms? Chapter 1 established the relevance of this topic. This chapter explores pertinent literature, which equates tensions in military medicine to mixed agency problems and offers solutions by rank-ordering priorities and proffering algorithmic pathways to guide actions in individual situations. However, the literature grossly limits discussion of military medicine as it pertains to violence and war with focus on ethically charged topics of international interest, and it underestimates the tensions military physicians commonly experience, especially during peacetime.

I begin by defining “professions” and establishing both medicine and the military as independent professions, key assumptions from which this research evolves. Next, I review the intersection of medicine with the military and establish a basis for military physicians, along with the resultant tensions as described in the literature, using a mixed agency frame. Finally, I review proposed solutions and suggest their insufficiency to alleviate tensions because they fail to address the system in which tensions occur.

Defining Professions

According to Webster’s online dictionary, a profession is “a calling requiring specialized knowledge and often a long and intensive academic preparation” (Merriam-Webster 2013). It includes the verb profess, which means, “to declare or admit openly” (Merriam-Webster 2013). The adjective professional describes a person that conforms to

the technical and-or ethical standards of a profession, but it is also used to describe working in a permanent career or to describe elevated status in activities also engaged in by those with less skill such as amateurs (Merriam-Webster 2013). Society depends on professionals to control and influence situations within their realm of expertise. Society respects professional service.

Andrew Abbott describes professions as occupational groups that control abstract knowledge or special skills requiring extensive training to acquire (Abbott 1988, 7). Professionals tailor use of their special skills to accommodate the requirements of unique situations. This work, use of special skills, defines professions—not the structural organization governing the work performed. Finally, professions are exclusive, meaning they are high-class, honorable, and limited—not everyone can join (Abbott 1988, 7).

Abbott contends that professions exist in dynamic systems, and understanding professions entails studying professional activity as well as the broader context in which that activity occurs (Abbott 1988, 2). Professions allow their members, as professionals, to control difficult social relations within these situations. Professions compete for jurisdictional control over their work within an interdependent system. Failure to define, compete for, and maintain legitimacy as experts within an arena may allow competitive forces to encroach upon jurisdictional boundaries, thereby reducing a profession's influence within that arena. Several variables influence a profession's ability to control its work such as technology, organizations, and culture. Abbott's theory regarding systems of professions offers new insights to understanding professions and challenges previous paradigms equating professions to organizational constructs of governing associations, licensing requirements, and ethics codes. The concept of "professionalization," or

adopting professional organizational constructs to claim professional legitimacy no longer grants vocations professional status under Abbott's theory.

I use Abbott's theory to define professions as exclusive vocations, defined by their work, which includes the tailored application of abstract knowledge to individual situations. Abstract knowledge requires extensive training or experience to obtain. Finally, professions are dynamic and exist within a larger system.

The Medical Profession

The medical profession has ancient roots dating back to Hippocrates, who inspires the current Hippocratic oath. By taking the oath, physicians swear loyalty to the medical profession and commit to its ethical standards to provide beneficial care to patients without knowingly causing harm (North 2002). Physicians apply medical knowledge (abstract knowledge) in a manner to benefit their clients (patients).

Physicians compete within a larger system for jurisdictional control of medical knowledge and legitimacy to conduct their work. In 1847, American Medical Association (AMA) was established to advocate for the medical profession, physicians, and patients (AMA 2013), increasing the legitimacy of physicians to practice medicine. Today, society provides increasing recognition to nurse practitioners, physicians' assistants (PAs), and other health care providers as legitimate practitioners in the health management profession. The emergence of medical specialties, governed by the American Board of Medical Specialties (ABMS), partitions the domain of medical knowledge, and subsequently the medical profession, allowing formation of smaller professional entities (ABMS 2013).

The ethos of medicine continues to evolve. The Hippocratic tradition promotes beneficence (acting to benefit the individual patient) and paternalism (physicians are best suited to determine what is in a patient's best interests) (Madden and Carter 2003). Judeo-Christian ethics emphasize the importance of communities above individuals and rules-based approaches for decision making influencing current standards in American medical ethics (Veatch 1987). The AMA formally adopted principles of medical ethics in 1957 stating: "The honored ideals of the medical profession imply that the responsibilities of the physician extend not only to the individual, but also to society" (AMA 1957). Today, the American medical ethos embraces principles of beneficence, non-maleficence, confidentiality, loyalty, and honor (Allhoff 2008b), which places primacy towards individual patient autonomy unless it places others at significant risk of harm (Beam and Howe 2003). Appendix A includes the current principles of medical ethics endorsed by the AMA.

I posit medicine is a profession with jurisdictional expertise in managing health, both for individuals and society. The ethos of medicine entails respect for human dignity in the application of medical knowledge to improve public health.

The Profession of Arms

Compared to the medical profession, the military profession is young. The concept of professional militaries first developed with permanence under the reign of Frederick the Great of Prussia in the mid 1700s by establishing the requirement for military education involving rigorous study for military officers (Luvaas 1986; Hartle 2003). Expert knowledge and skill became requisite over nobility.

America developed its Army in 1775 in preparation for the American Revolution. The Army claims the officer corps underwent professionalization in the late 19th century through the establishment of professional military educational systems and staff schools (United States Army Training Command (TRADOC) 2010). Through reorganization after the Vietnam War, the Army extended professionalization to include warrant officers, non-commissioned officers, and many Army civilians. However, these claims on professional status evolve from adopting professional organizational constructs rather than emphasizing the work military professionals perform within a larger societal context. Samuel Huntington argues the military deserves professional legitimacy by declaring the military shares distinguishing features of professions: expertise, responsibility, and corporateness (Huntington 1957). The military provides expertise in the management of violence, maintains responsibility for the nation's security, and demonstrates corporateness through unifying bonds of its members.

In considering Abbott's theory of professions, the military controls the domain of abstract knowledge regarding the management of violence to perform work of providing security for the state and its citizens. Recent conflict shows American military forces compete with other agencies to achieve similar ends suggesting professional military legitimacy requires more than just warrior skills (Hartle 2004, 18). Diplomacy, information, and economic factors, in addition to violence, contribute to state security. Bureaucratic processes influence the military's ability to effectively apply its expertise and maintain professional legitimacy.

Don M. Snider highlights concerns with bureaucratic practices eroding Army professional legitimacy, but he notes improvements in professional identification among

soldiers engaged in conflict (Snider 2005; TRADOC 2010). The Army requests professional legitimacy claiming, “The Army is an American profession of arms, a vocation comprised of experts certified in the ethical application of land combat power, serving under civilian authority, entrusted to defend the Constitution and the rights and interests of the American people” (TRADOC 2010, 4). The Army defines a professional soldier as “an expert, a volunteer certified in the profession of arms, bonded with comrades in a shared identity and culture of sacrifice and service to the nation and the Constitution, who adheres to the highest ethical standards and is a steward of the future of the Army profession” (TRADOC 2010, 4). The Army strives for continual internal improvement to increase its recognition as a legitimate profession among society (Casey 2009; TRADOC 2010; Combined Arms Center 2011; Snider 2012).

The Army profession lacks a single codified ethic, but derives its ethos from the values of the United States, the belief of civil control of the military, and organizational culture (Combined Arms Center 2011). The military ethos is exemplified in oaths of enlistment and commissioning, soldier and non-commissioned officer’s creeds, and other written statements such as the *Army Values*, the *Warrior Ethos*, and the *Soldier Rules* (Combined Arms Center 2011). Discussion exists whether the military should create a codified ethic to enhance professional legitimacy (Hartle 2004; Moten 2010; Perez 2012). Creation of a codified ethic is an act of professionalization, but it may fail to accurately convey the true ethos of the organization or professionally legitimize its work. The Army ethic’s central theme entails the ethical application of force with respect for human dignity and life in work that protects civilization (Hartle 2003; Hartle 2004; Perez 2009;

Perez 2012). Yet, some external bystanders view the military ethic to include military effectiveness, service, obedience, and self sacrifice (Bond 2009; Sidel and Levy 2003).

This paper grants American military members professional status. Granting the military organization professional status allows for better evaluation of tensions military medical providers experience by placing the military and medical professions on equal ground. I presume the military maintains jurisdictional expertise in the management of violence to perform the work of protecting civilization. The military ethos entails ethical application of force and the willingness of self-sacrifice in the protection of others, while respecting human dignity.

Physicians in the Military

Militaries engage in war, which typically entails violence and causes human injuries and death. Harsh environmental conditions contribute to disease. Disease and injury limit a soldier's effectiveness. Physicians, by stabilizing injuries and curing disease, restore and enhance a military's capability to wage war. Military physicians serve as members in a system designed to inflict injury and death upon others.

Long-standing medical tradition pledges to serve society and promote health; professional medical societies governing the medical profession have bylaws punishing physician activities that directly lead towards the wounding or death of others (Madden and Carter 2003, 271). American military physicians, as commissioned officers, provide medical care for servicemen, who directly harm others. This creates concerns for professional incompatibility and an argument against military physicians (Parrish 1972; Sidel and Levy 2003). Even Huntington suggests some officers, like medical personnel, lack competency to manage violence, stating "they belong to the officer corps in its

capacity as an administrative organization, but not in its capacity as a professional body” (Huntington 1957, 12).

Sidel and Levy argue physicians cannot morally serve within military ranks while upholding values embodied by the medical professional ethos.³ They argue military physicians subordinate patient interests to military interests, violate patient confidentiality and consent, and conduct inappropriate battlefield triage by neglecting to provide care to those in greatest need (Sidel and Levy 2003). They contend military physicians may develop command relationships that impair their ability to provide unbiased patient care. They declare the general camaraderie within the military prevents physicians from living up to the expectations and responsibilities set forth by the Geneva Convention, invalidating their noncombatant status. Their argument does not preclude soldiers from receiving medical care but states physicians must provide neutral care, which is impossible if they [physicians] serve in the armed forces.

Sidel and Levy make contestable assumptions by claiming the military goals of effectiveness and obedience shape the military ethos. Others demonstrate the military and medical ethos share central similarities (Madden and Carter 2003; Frisina 2009). Both professions share ideals of protecting the innocent, caring for the oppressed, and reducing human suffering (Frisina 2009). Madden and Carter contend both professions promote outcomes that are compatible and complementary: “Without security, neither individuals

³Dr. Levy, a dermatologist, was drafted to serve in the US Army during the Vietnam War. He was ordered to train a Special Forces aidman in dermatology skills but refused, arguing aidmen were being trained to serve in combat roles and that cross training in medical techniques could blur distinctions between combatants and noncombatants. Dr. Sidel testified on behalf of Dr. Levy during criminal proceedings, arguing physicians are responsible for repercussions of their acts.

nor their society can benefit from the profession of medicine. Conversely, physical and mental health allow citizens to both enjoy the fruits of their society and to be better equipped to handle threats to its fundamental values” (Madden and Carter 2003, 281).

This study assumes physicians can morally serve as officers in the military. Frisina suggests, “the essence of ethical behavior entails the voluntary ability to make choices regarding various courses of action” (Frisina 2009, 43). He notes, “if the entire enterprise of military medicine has no moral basis, than it would be impossible for one to engage in this activity as a voluntary moral agent” (Frisina 2009, 47). He acknowledges humans make mistakes: “Poor choosing does not negate the ethical nature of a profession, but exposes the flawed nature of human beings to conform behaviors to ideals we posit in our ethical principles and constructs” (Frisina 2009, 48). Thus, physicians are humans and imperfect, but they can morally serve in the military as professionals. Unfortunately, claiming a moral basis for military physicians does not eliminate the tensions they experience. Many tensions are described in the context of mixed agency problems, which I discuss next.

Mixed Agency

The previous section establishes a moral basis for military physicians as dual-professionals but acknowledges persistent tensions despite the morality of the position. Many scholars explain tensions exist because military physicians have dual loyalties to both their patients and the military, which creates mixed agency problems (Howe 2003a; Benatar and Upshar 2008; Allhoff 2008b; International Dual Loyalty Working Group 2008; Marks 2008; Pearce and Saul 2008; Weisfield, Weisfield, and Liverman 2008; Ascheim and Gittleman 2011). Mixed agency occurs when a single person represents two

distinct entities and their corresponding interests, which may be in conflict with each other. Mixed agency situations extend beyond the military. Team physicians represent sports organizations and athletes just as military physicians represent patients and the military. Physicians face dilemmas when they represent agents with incongruent interests; their actions benefit one agent at the expense of the other.

Mixed agency can lead individuals to assume multiple identities. The military physician is both a doctor and an officer just as a team physician is both a doctor and an employee. Research regarding dual identities among civilian lawyers suggests the relative importance lawyers place on a specific identity influences subsequent decision making (Robertson 2011). Lawyers who identify as employees of a company align more closely to their organization's goals whereas those identifying themselves as lawyers representing clients act more consistently with professional goals established by the legal bar association (Robertson 2011). Some scholars suggest military physicians increase their identification as military professionals during wartime and consequently make decisions favoring desired military goals (Benatar and Upshar 2008; Ascheim and Gittleman 2011; Robertson 2011).

Another way to examine mixed agency problems is to compare a physician's responsibility to individual patients to his responsibility to society (Benatar and Upshar 2008; Gross 2008; Matthews 2008). The professional medical ethic expects physicians to consider how their interventions affect both individuals and society (AMA 2001). Militaries, serving to protect society, may foster an environment where obligations towards society exceed obligations towards individuals, which may increase during war.

Thus, war may influence how military physicians identify themselves as professionals (Robertson 2011) or how they interpret societal needs (Benetar and Upshar 2008).

Mixed agency is not limited to the military, but several scholars suggest military physicians face conflicting obligations with increased frequency and of greater magnitude compared to civilian counterparts (Howe 2003a; Allhoff 2008b; International Dual Loyalty Working Group 2008; Weisfield, Weisfield, and Liverman 2008; Ascheim and Gittleman 2011). The War on Terror and medical involvement with abusive interrogation at the Abu-Ghraib prison in Iraq illuminated concerns, reviving mixed agency discussion in military medicine, which I discuss next.

Currently Discussed Tensions in Military Medicine

This section discusses military medical topics generating concerns among scholars and describes some tensions military physicians may face. The preponderance of discussion entails physician actions related to war or violence. It highlights ethically charged scenarios and uses mixed agency to describe factors influencing physician actions. Commonly discussed topics include military triage and casualty care, battlefield euthanasia, medical clearance for duty, medical involvement with interrogation or torture, physician involvement in weapons design, and treatment of homosexuals in the military.

Military Triage and Casualty Care

During war, the demand for medical services may exceed the supply of treatments available or the capacity of the medical system to promptly treat all those requiring care. Thus, triage is used to categorize patients and determine the order in which patients receive medical care and evacuation. Typical medical classifications categorize patients

based on the urgency medical treatment is required to preserve life. Medical communities commonly believe triage should help the sickest patients who are in greatest need first, even when resources are limited (Sidel and Levy 2003; International Dual Loyalty Working Group 2008; World Medical Assembly 2006).

Beam suggests triage models vary depending on the conditions in which triage takes place; he describes conditions as being nonaustere, austere, or extreme (Beam 2003). In nonaustere conditions, triage invokes strict medical priority and patients in the gravest condition receive treatment first. Austere conditions set in when resources (people, equipment, supplies) are significantly limited. A patient with extensive injuries requiring massive blood transfusions may be categorized to receive immediate, emergent care in a facility with plentiful resources, but another facility may withhold treatment to the same patient because it lacks sufficient resources—providing care would not guarantee survival and would exhaust limited resources, thereby depriving other less urgent patients from care they require and are more likely to benefit from (compared to the patient with extensive injuries). The final set of conditions, extreme conditions, are very rare, but may occur when military units suffer extreme personnel shortages and risk being overrun by enemy; it entails treating patients with the least severe injuries first in order to preserve the fighting force.

Military medicine receives criticism for giving preferential treatment to soldiers who can return to duty quickly over those expected to remain incapacitated longer. Historic examples include the use of antibiotics in World War II and General Patton's directives regarding priorities of soldier care. When penicillin first became available, supply was very limited. Providers used penicillin preferentially to treat soldiers with

venereal disease over those with more serious wound infections (Fitzgerald 2005; Sidel and Levy 2003; Howe 2003a). Even though medical personnel dispense medication, military commanders (non-medical personnel) can give orders regarding priorities for how those resources are used (Howe 2003a), which influences triage. General Patton is quoted to suggest: “If you have two wounded soldiers—one with a gunshot wound of the lung, and the other with an arm or leg blown off, you save the s.o.b. with the lung wound and let the g.d.s.o.b. with the amputated arm or leg go to hell. He is no g.d.use to us anymore” (Madden and Carter 2003, 286).

Military commanders typically understand battle condition austerity better than physicians and can thus direct medical triage (Howe 2003a). When one examines a particular situation in isolation, he may develop different preferential actions than when examined in a larger context; military physicians often lack the larger context. Adams argues military commanders have fiduciary responsibilities to invoke reverse triage in extreme conditions to enable mission accomplishment (Adams 2008), whereas others find this medically impermissible (Sidel and Levy 2003; International Dual Loyalty Working Group 2008).

Closely related to triage is the concept of treating individuals based on their identity or group association instead of by medical need. Contrary to standards set forth by the Geneva Convention and the World Medical Association, military physicians may allow patient nationality or affiliation to influence care priorities (Sidel and Levy 2003). Swan and Swan, in campaigning for unbiased medical triage, report: “[T]raditionally US combat casualty care has been directed towards US casualties first, allies second,

civilians third, and the enemy fourth” (Swan and Swan 1996). The difficulty in providing non-biased care during times of war is not limited to military physicians:

In about 400 BC, the Great King of Persia, Artaxerxes II, sent emissaries to Hippocrates to ask him, “with the promise of a fee of many talents,” to help in the treatment of Persian soldiers who were dying of the plague. Hippocrates is reported to have dismissed the emissaries, stating that he would never “put his skill at the service of the Barbarians who were enemies of Greece. (Sidel and Levy 2003, 302-303)

Hippocrates, despite his influence on today’s professional medical ethic, refused to treat enemies of his nation. Some argue that physicians, when impartial, contribute to the prolongation of war and increase human suffering by aiding the enemy and enhancing his ability to continue war (List 2008). Treating enemy soldiers with equal priority to friendly soldiers can significantly degrade survival of friendly forces, negatively effect soldier morale, and possibly alter likelihood of achieving victory (Howe 2003a; Fitzgerald 2005). Nonetheless, the American military strives to uphold standards set forth in the Geneva Convention and provide equal treatment to all patients including the enemy. Treating humans with dignity is consistent with American values and reflects how Americans wish enemies would treat their captives in similar circumstances (Howe 2003b). American values and underlying humanitarian principles are more important drivers of behavior than international law (Hartle 2004).

Battlefield Euthanasia

Battlefield conditions may result in significant resource scarcity, which may preclude medical treatment for individuals with devastating and fatal injuries. When these situations occur, physicians can assist in the patient’s death and provide euthanasia, to relieve suffering. Euthanasia discussion extends beyond military settings, but military

physicians serving during times of war may experience these situations with greater frequency and urgency compared to civilian counterparts (Beam 2003; Bond 2009). Euthanasia creates ethical tensions between minimizing suffering and hastening death.

Medical Clearance for Duty

Physicians violate the principle of acting in their patient's best interest by medically declaring a soldier fit for duty when not performing duty is more beneficial to the soldier's health (Sidel and Levy 2003). According to military regulations, physicians provide medical recommendations to commanders, but ultimately commanders direct soldiers to perform duties, not physicians (Howe 2003b; Weisfield, Weisfield, and Liverman 2008). Nonetheless, commanders frequently seek the advice of physicians in determining a soldier's capacity or limitations, and usually follow physician recommendations (Weisfield, Weisfield, and Liverman 2008).

Physicians often evaluate soldiers with psychiatric problems and combat stress, and many support retaining soldiers in combat zones rather than returning them home for recovery. Some argue keeping soldiers deployed denies them proper conditions for healing and may exacerbate illness or expose soldiers to increased risk of death (Sidel and Levy 2003). Others note retention in theater results in reduction of long term mental anguish and problems with survival guilt (Howe 2003b). The wartime environment may provide suboptimal conditions for restoring health in injured soldiers, physically or mentally; however, removing soldiers from combat environments for mild injuries can negatively effect a unit's combat effectiveness by creating a "floodgate" phenomenon in which soldiers actively seek care for minor problems with the goal of returning home (Beam 2003). Scholars believe physicians have a duty to protect or shield people from

harm (Sidel and Levy 2003; Bond 2009); but, it is not a physician's responsibility to prevent war, or similarly, prevent soldiers from going to war.

Interrogation and Torture

Physician participation in interrogation and torture highlights mixed agency problems and includes discussion regarding both the morality of interrogation procedures and physician involvement with them. Physical torture disrespects human dignity, which many argue is inconsistent with American military and medical values (Hartle 2004; International Dual Loyalty Working group; Howe 2003a; Sidel and Levy 2003); however, others provide utilitarian arguments favoring torture in circumstances when torture results in intelligence that alleviates suffering of many (Matthews 2008). Others accept torture may minimize short-term harm, but suggest examining second- and third-order effects of torture may inadvertently increase harm in the long run (Matthews 2008).

Effective employment of torture during urgent situations necessitates established procedures and protocols, which subsequently normalizes torture and institutionalizes it (Matthews 2008). To improve interview effectiveness, interrogators may solicit doctors, because of their medical expertise, for advice on how to obtain information (Marks 2008). Arguably, physicians violate the ethos of the medical profession when they share medical knowledge with interrogators, whose intent is to use this information in ways outside of a patient's best interests. Others argue that physicians working in association with prisons and interrogation facilities serve specific roles outside the capacity of a patient-physician relationship, and thus have different duties (Allhoff 2008a).

The International Dual Loyalty Working Group proposes, "the military health professional should refrain from direct, indirect, and administrative forms of cooperation

in torture and cruel, inhumane, and degrading treatment and punishment at all times, including wartime and during interrogation of prisoners” (International Dual Loyalty Working Group 2008, 36). However, Allhoff argues physicians are an integral part of interrogation. Doctors examine prisoners before questioning and ensure they are medically fit to endure an interrogation session (Allhoff 2008a). If torture is observed, military physicians can treat detainees and fulfill their obligations (as physicians and officers) to report inappropriate treatment (Allhoff 2008a; Weisfield, Weisfield, and Liverman 2008). Thus, physicians can protect detained individuals and reduce improper treatment. While some argue it is immoral for physicians to work in association with interrogation, others argue failure to include physicians in the process is also immoral.

Weapons Development

Weapons are fundamentally designed to cause harm. Some weapons, like chemical agents and nuclear explosives, are considered immoral and deemed illegal by international law because they cause excessive and unnecessary suffering. Since weapons cause harm and medical professionals embrace nonmaleficence (doing no harm), can physicians morally work in weapons development?

Gross suggests, assuming war is part of human nature, that nonlethal weapons resulting in fewer casualties than current weapon systems allow, could be beneficial and perhaps desirable, especially in asymmetrical wars or conflict surrounding humanitarian intervention (Gross 2008). Development of nonlethal weapons requires medical knowledge, which physicians can provide to help reduce the lethality of war. Opponents argue physician participation in weapons development violates the ethos of medicine (Nathanson 2008). Allhoff suggests that medical knowledge should not come with moral

obligations, noting that “a medical degree is *merely* a certification of technical merit and not a ‘sacramental vow’” (Allhoff 2008a, 99).⁴ Physicians assisting with weapons development research are serving in a specific role, and not acting in the role of patient care. When physicians serve in certain roles (non-patient care), one can argue they abrogate physician responsibilities (Lunsroth 2008), thus invalidating nonmaleficence as a reason against involvement in weapons development.

Some argue physicians are responsible for the second-order effects of their actions (Sidel and Levy 2003), suggesting physicians are culpable for unintended consequences resulting from misapplied medical knowledge. The dual-use dilemma arises when research outcomes can produce both positive and negative consequences (Miller and Selgelid 2008). The intent behind actions influences the morality of those actions; but, it is difficult to verify (Miller and Selgelid 2008). Agents developed with good intent can later be used with malicious intent. Gas agents were designed as nonlethal weapons intended to encourage surrender without death or destruction to the body, but they were later employed as a force multiplier to slow the enemy and facilitate lethal strikes (Gross 2008). Gas agents are now illegal.

Physician involvement in weapons development demonstrates an intersection between medical knowledge and potential military application, but tensions apparent in this debate are not specific to military physicians. Civilian doctors can also assist in weapons development. The discussion is stimulating, but it involves relatively few physicians and even fewer military physicians. Unless physicians are involuntarily assigned, forced, or coerced to aid in nonlethal weapons development, physicians who

⁴Emphasis in the original

participate likely do so with good intentions. Tensions related to weapons development may trouble society more than the physicians involved.

Treatment of Homosexuals

Previous military medical dialogue reviewed tensions with the treatment of homosexuals in the military. The “Don’t Ask, Don’t Tell” policy ignited debate regarding medical treatment of homosexuals, especially concerning their association with the Human Immunodeficiency Virus (HIV). Concerns originated from a physician’s obligation to society to notify contacts of public health concerns when doing so could uncover homosexuality. Though soldiers could not voluntarily disclose their sexual preferences, incidental discovery served grounds for administrative separation from the military (Howe 2003a; Beam and Howe 2003). Tensions increased as Congress passed laws protecting soldiers with HIV from involuntary military separation because others with less severe medical diagnoses require evaluation for potential military separation (Howe 2003a). Recent changes in policy allowing homosexuals to serve openly in the military should alleviate some of the tensions driving previous discussion. Nonetheless, legal protection for soldiers with HIV may fuel future tensions as the military reduces force size and other soldiers with non-preventable chronic illnesses are medically separated without legal protection.

Proposed Solutions for Mixed Agency Problems

Thus far, I have established both medicine and the military as professions. Despite their differences, I juxtaposed their professional ethos with corresponding similarities and established a moral basis for an individual to serve in both professions simultaneously. I

introduced mixed agency as a concept used to frame tensions military physicians face and reviewed tensions commonly discussed in current literature. This section discusses how scholars recommend resolving tensions military physicians face. Appendix B reviews basic ethical theories and their relationship to underlying tensions in military medicine.

Addressing the Mixed Agency Challenge

A natural tendency in resolving situations with conflicting loyalties is to declare that one loyalty takes precedence over the other. Allhoff theorizes four conceptual ways to resolve dual loyalty problems for military physicians. First, he suggests one must examine medical values in comparison to non-medical [military] values; he suggests either values are commensurable or incommensurable. If values are commensurable, one must rank order them; but, when values are incommensurable, one set of values does not apply (Allhoff 2008b, 7). He posits a fourth scenario, wherein both sets of values apply to a situation, despite their incommensurability, but he dismisses further discussion as this fourth scenario does not offer solutions to mixed agency problems.

Bond expresses concerns with either-or solutions and suggests external factors complicate mixed agency situations (Bond 2009, 17). He acknowledges the preference to rank order priorities between physician duties and officer duties, but finds potential for a case-by-case approach in evaluating morality of specific situations (Bond 2009, 92). Bond suggests either-or solutions downplay conflict that moral persons face, and he proposes a topology to guide moral decision making. His topology offers four basic guidelines to follow as well as moral parameters in the form of at least two dependent variables and seven independent variables. No doubt, significant thought and deliberation contributed to the development of this topology, but it is rather confusing and

cumbersome. Bond's topology is unlikely to provide meaningful benefit for those it is intended for. I am unable to succinctly summarize what I believe is a complicated discussion, and I refer readers to the original source to make their own judgments.

Beam and Howe (2003) suggest a simplified algorithm to assist with military medical decision making. A military medical ethics workshop designed to tackle mixed agency problems suggests ethical decision making requires more thought than prioritizing ethical principles and encourages increased training and transparency in military ethics policies and processes (Weisfield, Weisfield, and Liverman 2008). The Dutch military also emphasize the importance of medical ethics training for military unique scenarios (van Luesden and Hoejenbos 2006). In the sections that follow, I discuss proposed conceptual solutions to mixed agency problems in military medicine.

Mixed Agency Applicable, Values Commensurable, Rank Order

Literature suggests the basic ethos of the military and medicine are commensurable, each sharing similar values (Madden and Carter 2003; Rascona 2003; Howe 2003a; Frisina 2008). According to Allhoff, priorities must be rank ordered. By assuming values are commensurable, it seems improper to declare one profession more virtuous than the other, disqualifying virtue-based ethics in the decision making process. This leaves action-based ethical principles to guide choices.

Deontological ethics, presuming universal laws, could govern choice. However, if truly universal in nature, this may proffer little benefit as the same law would equally apply to the physician and the officer. Alternatively, medicine and the military, while sharing values, may suggest different principles universal to the organization instead of all mankind. Accordingly, military physicians may prioritize one organization and its

corresponding principles over the other. If unable to decide precedence of rules, utilitarian arguments based on greatest value may provide plausible solutions (Allhoff 2008b; Howe 2003a; Benatar and Upshur 2008). However, there is never any certainty in predicting outcomes or determining true valuation from actions (Matthews 2008).

If priorities must be rank ordered, what is the evidence to support how this rank ordering should occur? I cannot find evidence supporting one role as being superior to the other, either universally, or for specific scenarios. If a rank order fluctuates with changes in the context of a situation, it makes little sense to suggest rank ordering in the first place. An alternative approach implies a social hierarchy among professions. To some, medicine is regarded more highly as a profession than the military, suggesting duty to the profession of medicine should prevail.

There is no absolute difference between professional and other kinds of occupational behavior, but only relative differences with respect to certain attributes common to all occupational behavior. . . . [On this view] the medical professional is more professional than the nursing professional, and the medical doctor who does university research is more professional than the medical doctor who provides minor medical services in a steel plant. Professionalism is a matter of degree. (Barber 1963, 18)

The language scholars use in mixed agency discussion regarding military medicine refers to medical professionals versus military officers, hinting that the medical profession takes priority over the military (International Dual Loyalty Working Group 2008; Matthews 2008). Some may not view the military as a legitimate profession, but I do. The idea of superiority among professions remains an opinion without evidence to support the claim. The military physician may choose to identify more closely with one profession than the other. Equally plausible, the military physician may struggle to find balance between two

distinct and noble professions. This balance between professions is not for external entities to dictate, but for individual military physicians to decide.

Dismissing Mixed Agency, One Side Not Applicable

Several scholars find medical values and military values incommensurable (Sidel and Levy 2003; Allhoff 2008b; Lunsroth 2008; Nathanson 2008). Most suggest the values of the medical profession transcend the military values (Sidel and Levy 2003; Lunsroth 2008; Nathanson 2008), rendering military values irrelevant with regards to how physicians provide medical care. Allhoff uses Michael Walzer's *Spheres of Justice*, which suggests that to fairly use resources within a sphere [medicine]—one should only consider factors internal to that sphere, to conceptualize how military physicians can dismiss non-medical values from influencing medical care (Allhoff 2008b, 9). In other words, Allhoff suggests the medical sphere and military sphere are closed systems with regards to making either medical or military decisions. This eliminates mixed agency problems and simplifies decisions for military physicians.

Allhoff acknowledges the above as his own juxtaposition of Walzer's work to military medicine and openly discusses potential problems, especially with how spheres are designed. My own critique questions the validity of the argument that spheres should be treated as closed systems; the world is replete with open systems creating multiple interactions—actions in any one system may influence multiple others (Connolly 2011). Nonetheless, Allhoff moves past his *Spheres of Justice* analogy but still suggests medical values need not apply or influence decisions in military medicine because medically trained personnel need not be members of the medical profession (Allhoff 2008b).

Allhoff dismisses the authority of medical ethics when military physicians serve in military specific roles, such as hostile interrogations or weapons development. I am unsure if he endorses that military values should not influence military doctors working in primary care roles. Does a military doctor's role change when a country is engaged in war? Can a medically trained person ever return to the medical profession after serving in roles contrary to it? Professions advocate for career permanency over transient jobs. Shifting between role specific ethics based on individual assignments undermines the nature of mixed agency related tensions that dual professionals experience.

John Lunsroth suggests:

This is not an issue of professionalism, if by that is meant some persons have technical skills that require extensive education to learn, that confer significant power to affect a person's life or property, and that inherently imply a relationship of trust between the expert and the client. That is a legal model of professionalism or that of a financial expert. If we assume there is something special about medical professionalism, that it involves a special relationship because it deals with a person's body and mind, their most intimate experiences, then given the fact that many medical graduates do not enter into such intimate relationships, it is clear that medicine is, in a significant way, really two professions, one personal and one impersonal. (Lunsroth 2008, 141)

Lunsroth states physicians are unable to establish doctor-patient relationships when they maintain duties to employers, which supersede their duties to patients. He suggests that a military physician serving in a primary care capacity is unable to establish a true doctor-patient relationship. Lunsroth recommends multiple classifications of medical licensure requiring different certification exams and qualifications—licensure classification should delineate primary loyalties: to that of the patient or that of the employer.

The above recommendations suggest absolute and universally applicable solutions to mixed agency problems, which dismiss the very problem they seek to solve.

Algorithmic Decision Making

Howe suggests military physicians' priorities change according to specific situations—in some circumstances physicians must favor military needs and follow duties required by military law or regulations, but at other times, they can practice discretion (Howe 2003a). He uses the concept of a military role specific ethic to describe situations where military physicians should adopt a stance placing military priorities above patient priorities. Circumstances requiring a military role specific ethic include: treatment priorities of soldiers with combat fatigue, the administration of unproven pharmaceuticals, treating to conserve the fighting strength, and the counseling and utilization of irradiated soldiers. Otherwise, military physicians can practice discretion when balancing the needs of the military with needs of patients. Howe emphasizes patients' needs be prioritized over military needs when prejudicial information is acquired during medical research or in meeting medical needs of homosexual soldiers or evaluating homosexual soldiers with security clearances (Howe 2003a).⁵

Howe and Beam propose a military medical decision making algorithm to assist military physicians in resolving mixed agency tensions. They declare that military physicians are physicians first—the physician identity should supersede the officer identity in making most decisions (Beam and Howe 2003). Their decision making algorithm is included in figure 1.

⁵Howe described his considerations prior to the repeal of “Don’t Ask, Don’t Tell” in which incidental discovery of homosexual activity resulted in military discharge.

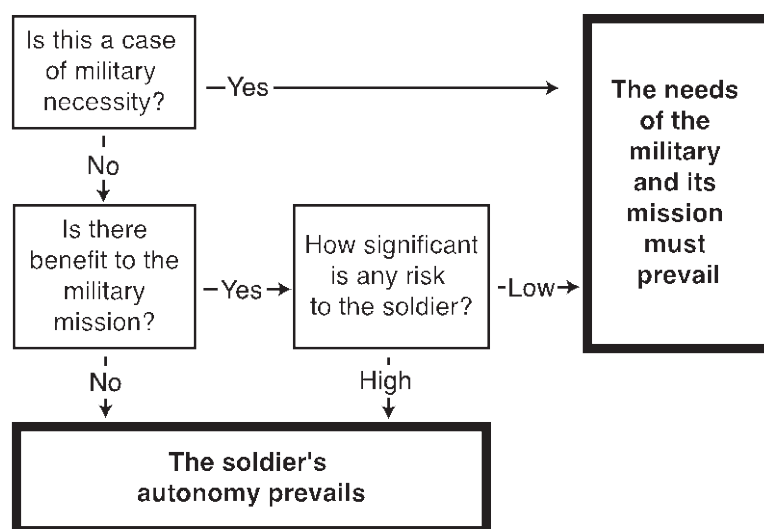


Figure 1. Military medical ethics decision making algorithm

Source: Thomas E. Beam and Edmund G. Howe, “A Proposed Ethic for Military Medicine,” in *Textbooks of Military Medicine: Military Medical Ethics*, Vol 2, ed. Dave E. Lounsbury and Robert F. Bellamy (Falls Church, VA: Office of the Surgeon General, 2003), 855.

Physicians should approach situations asking if the case is of military necessity. Only the Secretary of the Army, or his designee, has the authority to determine military necessity (Beam and Howe 2003, 856). Hence, military doctors begin the algorithm by asking questions they cannot independently answer; they require input from centralized authority. If an algorithm is dependent on defining military necessity, it should include granularity on how military necessity is defined and by whom. Current military doctrine, *Mission Command*, encourages decentralization of decision making authority (within bounded limits) to the lowest level, allowing those with the greatest situational awareness of the local environment to determine requirements and needs (US Army 2012b). Thus, local commanders should have authority to determine necessity. If military necessity

trumps soldier autonomy and individual rights, can a junior officer commanding a platoon or company determine necessity, or is it assumed the directive would come from a more experienced commander? Is it fair to assume that situations Howe suggests require a military role specific ethic always mandate military necessity, which then allows physicians to determine necessity independently of the commander? This begs the question: Does military necessity ever exist in situations not already addressed?

The remainder of the algorithm involves utilitarian type assessments, attempting to determine benefits and harms to both the military and the soldier. These estimates are subjective and difficult to measure. The algorithm presupposes medical personnel understand the military mission and how medical decisions influence it, which is a contestable assumption. The algorithm's authors discuss concerns with military physician situational awareness of military needs in other essays (Howe 2003a; Beam 2003).

Howe notes dilemmas result when military physicians find conflict between ethics and the law (Howe 2003a). I interpret Howe's inference to dilemmas to mean that either values-based (virtue) or consequences-based (utilitarian) constructs conflict with rules-based (deontological) ethics—or duty to obey—to create dilemmas, which may arise when military physicians face potentially unlawful orders. Instead of making independent judgment regarding precedence of ethical valuation and the law, Beam and Howe encourage military physicians to seek legal advice to help elicit support from their commanders (Beam and Howe 2003). They propose an additional algorithm for these situations, which is included in appendix C.

Howe suggests physicians need not follow the letter of the law (or military regulation) in all patient care scenarios noting preference to patient care over military

regulations (Howe 2003a, 347). This can leave the impression that military policies and regulations serve as “paper tigers” (Rascona 2003, 322) allowing independent physician decisions and limiting need for legal involvement for when physicians disobey direct command orders, instead of every non-adherence to military regulations.

What is Missing from Discussion?

Current discussion uses the concept of mixed agency to explain tensions military physicians experience and focuses on combat related tensions with only brief review of peacetime tensions and corresponding mixed agency concerns in civilian medicine. Most literature suggests military physicians should preferentially preserve loyalties to individual patients over the military in most circumstances, but it lacks evidence to support these recommendations. Literature fails to address how mixed agency affects civilian physicians working for the military.

Most discussion entails ethically charged and controversial topics that spark emotional responses from opposing sides. However, the topics discussed only represent a small fraction of tensions military medical providers face. Military physicians spend more time in garrison than deployed. Presumably, military physicians experience tensions and mixed agency related problems in garrison too. Factors influencing military physician decisions in garrison may reinforce later actions while deployed.

Mixed agency implies one person struggles between loyalties to different agencies, but it fails to examine relationship structures between individuals and agencies that influence decisions. Australian research regarding military health services suggests:

One strong element of ADF [Australian Defense Force] military health practice is the working relationships and understanding developed between health and operational personnel when they work and train together. This does differ

across the three services, and also differs when operating in a joint force situation. Understanding the different relationships with the different stakeholders is important in determining when and where potential issues may arise. (Pearce and Saul 2008, 80)

The Australian research insinuates: “the principles and values of command and military health professionals have been developed separately and do not combine to create a set of shared health values and ethics across the organization” (Pearce and Saul 2008, 87). They suggest a lack of communication in creating a common vision regarding military health care results in misunderstanding between military forces and medical units. Some tensions result from relationships within the organization.

Conclusion

This chapter establishes a moral basis for military physicians as members of two distinct professions that embody similar ethos and reviews the resultant tensions military physicians experience within the mixed agency context. Currently proposed solutions are either overly simplified or too rarified to disentangle empiric reality. By treating tensions in military medicine as a contest between military and patient interests, scholars overlook internal tensions resulting from divisions among stakeholders and the multiplicity of relationships that influence a military physician actions. I propose looking beyond generalized solutions for specific types of tension provoking situations and exploring the context and interactions influencing a military physician decisions to uncover empirical tensions embedded within the system through which decisions are made. A sounder understanding of frictions related to the dynamics of military medicine may afford development of novel, practical solutions more applicable to alleviate tensions military physicians commonly experience.

The next chapter discusses how I plan to answer the research question: What professional tensions arise for the military physician, who straddles the profession of medicine and the profession of arms? I review the IAD framework as a method to conduct organized analysis of institutions and systems and discuss how I will apply the IAD framework to military medicine using case studies in chapter 4.

CHAPTER 3

RESEARCH METHODOLOGY

The primary research question is: What professional tensions arise for the military physician, who straddles the profession of medicine and the profession of arms? Chapter 2 reviews current literature, which uses the concept of mixed agency to describe tensions and offers resolutions by recommending hierarchical imperatives and algorithmic solutions, which are contestable and marginalize the mixed agency problems they seek to resolve. I suggest scholars gloss over many tensions military physicians experience and focus on ethically controversial issues of public and international interest, and they proffer solutions of little practical use for most military physicians in everyday practice. Chapter 3 reviews the IAD framework, a method for analyzing institutions and how they shape and influence individual actors and their actions and discusses how the IAD framework will be applied to case studies in chapter 4 to identify tensions endured by military physicians, while bridging two professions.

Institutional Analysis

The IAD framework helps scholars analyze and understand individual behaviors within larger collective action situations. A key aspect of analysis entails how institutions influence and inform individual actions. The IAD framework has been validated through use in multiple empirical studies (Gibson et al. 2005, 24).

The basic components of institutional analysis include identifying a collective action situation, determining the context that frames and influences this situation, and the behavioral interactions or outcomes most likely to result. Incentive structures influence

interactions, actions, and resultant outcomes. Evaluation of outcomes produces feedback mechanisms, further influencing the context and framing of subsequent action situations (Gibson et al. 2005). Figure 2 illustrates the basic components of the IAD framework.

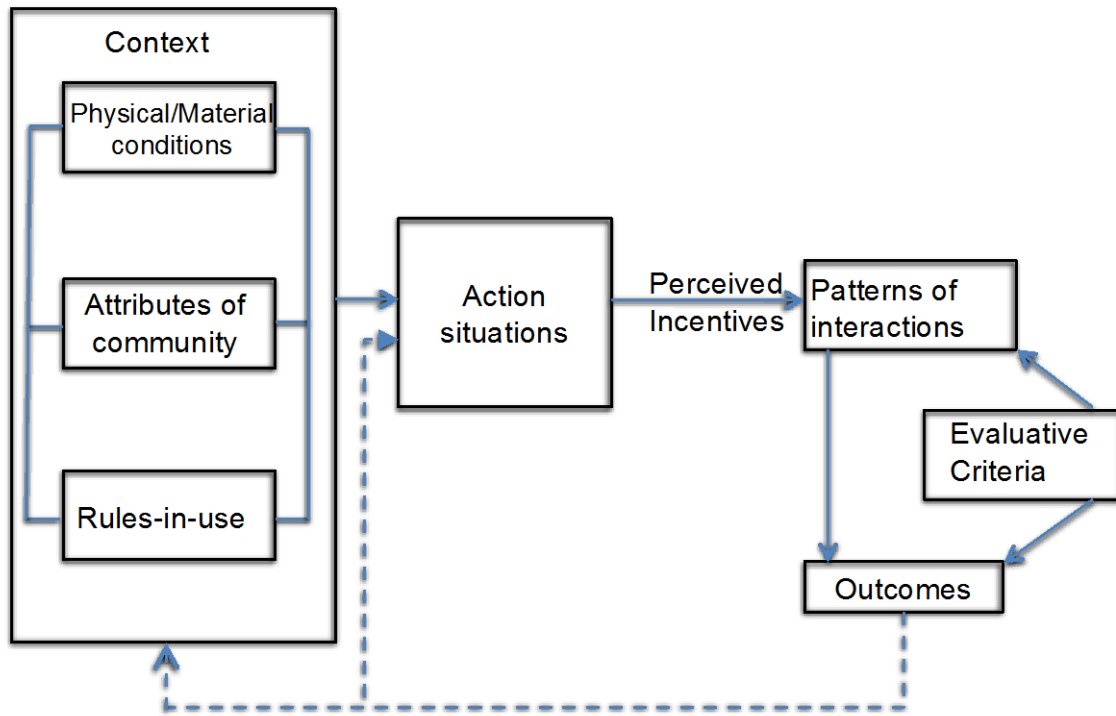


Figure 2. Institutional Analysis Framework

Source: Elinor Ostrom, “Beyond Markets and States: Polycentric Governance of Complex Economic Systems,” *American Economic Review* (June 2010): 646.

The context frames and influences action situations. Multiple elements contribute to the context including physical and material conditions, attributes of the community, and rules-in-use for a given institution. Rules, regulations, and governing laws are part of the structural environment, but they may differ from the rules-in-use actually practiced by

organization members. Feedback from previous experiences influences the larger organizational context, to include attitudes and policy governing accepted, encouraged, and unwanted practices.

Action situations are complex conceptual units consisting of multiple variables, including: actors, positions, actions, information, outcomes, and elements of cost-benefit analysis (McGinnis 2011, 173-174). One chooses actions based on available information pertaining to an action situation, including expected outcomes from actions. Each actor brings his own narrative, or interpretation, of the context to an action situation and processes information differently. Accordingly, each actor may apply independent techniques in selecting a course of action based on internal value assigned to actions and outcomes. An actor's relationship with other stakeholders, along with corresponding or competing incentive structures, also influences actions.

Although different actors bring different narratives and interpretations to action situations and may act differently from others in similar scenarios, one can identify patterns of interactions by exploring commonalities in relationships and incentive structures. These patterns of interactions are key to identifying tensions.

Applying the IAD Framework to Military Medicine

The IAD framework offers a systematic way to evaluate (1) action situations, which comprise stakeholder interactions, (2) the contextual factors that shape the interactions and incentivize certain stakeholder strategies, and (3) the patterns of interactions that emerge from repeated, oftentimes routinized, stakeholder relationships. The complexity that saturates the vast array of interrelated interactions presents a diagnostic challenge: At what level should the analyst diagnose the multifarious tensions

that military physicians routinely experience? Rather than using the IAD framework to study action situations at the macro-level (i.e., to explore the space of interaction between the profession of arms and medicine) or at the micro-level (i.e., to explore the dynamics of individual interactions), I try to link the two levels analytically by focusing on the connections between interactions at the macro and micro levels. Specifically, I use contextualized, narrative models to diagnose how individual-level motivations develop and play out within a broader structural, institutional, and ideological context.

In most political science research, models (often times specified in mathematical terms) specify detailed functional relationships among particular variables, which are hypothesized to operate in some well-defined set of conditions (McGinnis 2011, 170). I introduce 35 case studies, each of which is set forth as a model in the just-described conventional sense. However, this study employs a modification to the standard model. This modification, like the more conventional models, specifies detailed functional relationship between variables. However, unlike conventional mathematical models, the models in this study specify significantly more variables, many derived from the action situation's context. Moreover, I set forth these models in a narrative form. This study will focus on institutions (or rules), the clusters of incentives they create, and the consequences, many times unintended and often deleterious, that engender professional tensions; e.g., the tensions that arise between a physician's desire to satisfy a patient's wants on the one hand and the physician's responsibility to the military on the other hand. These 35 contextualized, narrative models will explore the tensions between physicians, their colleagues, their patients, and their patients' military commanders.

One way to think about this study's method is to view these 35 models as derivations from a participant-observer research, albeit retrospectively. These narrative models compose a series of observations that, while personal (and in some cases hypothetical), are also familiar to many military physicians and medical caregivers. This method poses limitations as it draws and specifies these tensions from a single spectator. To be sure, other persons would certainly contribute alternative perspectives. Nevertheless, this method, however much based on one analyst's experience, achieves authenticity to the degree that the 35 narrative models ring true to military physicians, soldiers, commanders, and the broader medical, military, and scholarly communities. To my knowledge, this is the first study to systematically diagnose a series of cases, each specific to military medicine, by exploring the connections between individual-level incentives with macro-level professional concerns to enable a more granular understanding of tensions commonly experienced by military physicians.

Conclusion

This chapter introduced the IAD framework as a method for evaluating actions individuals take within larger organizational construct. The model assists in identifying systems, relationships, and incentive structures with resultant patterns of interaction, which help identify tensions. The next chapter applies the IAD framework to military medicine to answer the research question: What professional tensions arise for the military physician, who straddles the profession of medicine and the profession of arms?

CHAPTER 4

ANALYSIS

The primary research question is: What professional tensions arise for the military physician, who straddles the profession of medicine and the profession of arms? Chapter 3 introduced IAD framework, which I will apply in this chapter to military medicine. Chapter 4 begins by providing an overview to the context contributing to action situations within military medicine. Next, it illustrates key relationships centered around military physicians, the primary actors in the case studies that follow. Finally, chapter 4 explores a series of case studies to answer the research question. Each case study serves as a model and explores stakeholder interactions and perceived incentives to elucidate theoretical tensions military physicians experience. A sounder grasp of frictions related to the dynamics of military medicine may afford development of novel, practical solutions more applicable to alleviate tensions military physicians commonly experience.

The Contributing Context

Chapter 2 provides insight to military and medical contexts through discussion of the separate professions and their underlying ethos. This section overviews contextual factors creating a backdrop for various action situations. This synopsis originates from my experiences as a primary care military physician. Contextual descriptions are personal observations and assessments, and others may further expand upon or contest them. I review how physicians enter the military (physical and material conditions), attributes of the community (both the medical and military communities), and generalized rules-in-use. This study examines context as it relates to Army physicians serving on active duty.

Military physicians may or may not have military experience prior to medical school. A small percentage of cadets graduating from the reserve officer training corps (ROTC) and from the United States service academies obtain scholarships to study medicine. Likewise, some officers enter the medical field after service in a different military specialty, such as the infantry, aviation, or intelligence.

The military acquires doctors by offering scholarships for medical school and by recruiting physicians who have already completed training. Military scholarship provides two options: the Uniformed Services University of the Health Sciences (USUHS), which is a military medical school educating physicians for the Army, Navy, and Air Force, or the health professions scholarship program (HPSP), which funds education at civilian facilities. Students attending the Uniformed Services University of the Health Sciences complete nearly 100 percent of their education in military facilities through medical school, internship, and residency. Students enrolled in the health professions scholarship program attend civilian medical schools, but have some exposure to the MHS during medical school rotations and compete for military internship and residency slots. However, the military medical education system lacks capacity to educate all military physicians, and some complete internships and residency through civilian programs. Others receive direct commissions into the military after completing civilian education without military scholarships. Most directly commissioned physicians have no pre-existing military experience or education. They may or may not sign contracts with the military to payback pre-existing loans incurred during their education.

The Army currently sponsors physicians in 41 occupational specialties, some which allow for additional specialization. These military physicians often work along

side civilian physicians working for the government, as government service (GS) employees or contractors, which may or may not have prior experience with the military. Each specialty has variable experience working with soldiers, with some specialties (pediatric neonatologists) only exposed to soldier care during deployment.

Historically, Army physicians served as general medical officers (GMOs) with a military unit after completing medical school and internship, but before residency training and subsequent specialization. However, in the early 2000s, the Army placed greater emphasis on ensuring physicians completed residency training to increase clinical acumen and produce better quality physicians before assigning physicians to units. When I graduated from medical school in 2005, I gathered a negative perception of GMOs from senior medical physicians and mentors.⁶ The Army medical community placed different values on physicians, which expanded beyond specialization to include the populations physicians worked for. The large divide appeared between two distinct communities, the one governed by the United States Army Medical Command (MEDCOM) and the one governed by the United States Army Forces Command (FORSCOM).

MEDCOM provides the structure for Army medicine and controls the majority of military physicians. It controls military clinics, hospitals, and medical centers and provides care to soldiers, their dependents, and retirees. MEDCOM operates similarly to a large business organization controlling multiple specialties offering many services. It

⁶I expressed active interest in serving as a GMO prior to residency training, and I was discouraged by Army senior providers who warned of less favorable evaluation reports and increased safety concerns regarding insufficient training. Many expressed opinions that those serving as GMOs were non-competitive; hence, they were not chosen for residency training and were free to fill the undesirable GMO slots. The Navy, on the other hand, encouraged GMO positions after internship to fill positions as ship-doctors, and many physicians spoke positively about their experiences as GMOs.

monitors provider performance in terms of workload, efficiency, and patient satisfaction, down to the by-name level. MEDCOM monitors more than aggregate clinics, hospitals, and departments; it monitors individual physicians.⁷ MEDCOM follows civilian medical trends by creating patient centered medical homes (PCMH) and being an accountable health care organization (ACO). MEDCOM incentivizes continuity of patient care so patients have regular follow-up with the same primary care provider. It promotes monitoring and achieving disease-oriented goals for various medical diagnoses with awards or penalties based on clinic performance.

Monitoring business parameters in medicine comes with significant administrative burdens. Usually, doctors communicate with and influence other doctors better than administrative personnel, who are out of touch with the realities of patient care. Thus, military physicians are placed in management roles and complete significant office work in addition to patient care responsibilities. All time spent on patient care, training, and administrative functions requires daily reporting in 15-minute intervals. Clinics are incentivized and penalized based on both timeliness and accuracy of reported data. The MEDCOM community uses business metrics to demonstrate efficiency, productivity, and quality medical care. However, FORSCOM providers fail to stack up to MEDCOM providers when judged through these business metrics, contributing to perceptions by MEDCOM providers that FORSCOM providers are lazy and incompetent.

Military physicians working in FORSCOM units experience a different atmosphere. They may or may not see patients in a MEDCOM facility—many work in

⁷The Army maintains a website, <https://cms.mods.army.mil/cms/>, that has links to individual provider level data used to compare providers within and between treatment facilities. Any individual with a common access card has access to this data.

troop medical clinics (TMCs) or aid stations and only provide care to soldiers. In addition to patient care, physicians have other responsibilities within their unit. FORSCOM physicians code time spent on patient care and unit activities with less granularity than their MEDCOM cohorts; they view details of time utilization with less importance. FORSCOM commanders place more emphasis on medical effectiveness and timeliness of treatment in the context of ongoing military operations than on provider efficiency or productivity. Commanders and soldiers value proximity to their physicians, which facilitates informal communication and adjustments in patient care. This informal communication, taking place outside of medical facilities, may not translate into official medical records or workload. FORSCOM commanders measure medical readiness—the percentage of soldiers in a unit medically ready to deploy. Some FORSCOM units feel the MEDCOM system is ineffective and view MEDCOM providers as being overly protective—they superfluously restrict soldiers and fail to provide communication regarding anticipated duration of restrictions or expected recovery.

The differing cultures between communities afford generalized perceptions and misperceptions by one organization about the other. Nonetheless, military physicians working in both communities share similarities in rules-in-use. Both MEDCOM and FORSCOM honor a hierarchical structure. Two distinct hierarchies include military rank and functional position. Senior ranking officials exert a high degree of power in shaping actions of junior ranking officials through rank alone. Position also produces power. Commanders have greater power and influence than like-ranked individuals not serving in command just as physicians typically exercise more power than nurses of similar rank.

Rules-in-use contrast regarding soldier autonomy. Medical rules-in-use value patient privacy and autonomy whereas military rules-in-use value the organization or unit. The Army allows individual privacy to the extent it does not interfere with a soldier's readiness or a unit's ability to accomplish assigned missions. When an individual has limitations with regards to duty, military rules-in-use grant commanders a privilege to this information because a soldier's impairments may affect his unit.

In addition, medicine values abductive reasoning and serial follow-up over time to diagnose and treat individual patients. Physicians develop subsequent plans only after initial evaluation or treatment efforts fail. The military provides less tolerance this type of ambiguous approach, especially when medical follow-up becomes prolonged and drawn out. Rather, the military prefers prompt assessment and detailed plans outlining specifics of medical problems, treatments, and projected duration of limitations.

Both military and civilian guidelines contribute to rules-in-use governing medical care of soldiers. Army Regulation (AR) 40-501, *Medical Standards and Fitness*, defines the desired rules governing care of soldiers, to include disqualifying medical conditions and formal methods for communicating recommended duty restrictions for medical problems. Assorted medical associations, academies, and task-forces across medical specialties provide accepted medical rules governing standards of care and clinical practice guidelines (CPGs) for various medical conditions and disease prevention. Military guidelines do not always match civilian guidelines, just as civilian guidelines from different organizations occasionally conflict with each other. Thus, actual rules-in-use are situation dependent, which we will review in the case studies that follow.

Relationships in Military Medicine

The previous section discusses elements of the context contributing to action situations where military physicians make decisions. This section illustrates patterns of relationships that influence a military physician's actions. Figure 3 illustrates a relationship diagram, centered on military physicians, the key decision makers in the case studies I discuss later. Solid lines reflect direct relationships and dashed lines represent indirect relationships. Indirect relationships may or may not influence actions by military physicians. Their influence depends on participation by actors within the relationship. Some specific relationships are discussed in more detail below.

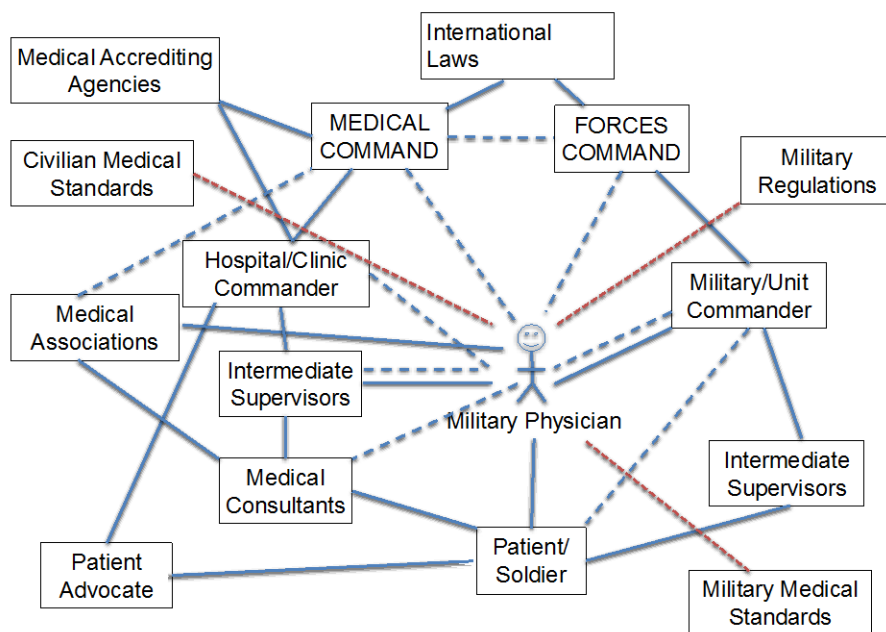


Figure 3. Military Physician Relationships

Source: Created by author.

Military physicians have direct relationships with the patients and soldiers they treat, but organizational relationships fluctuate based on the unit to which the military physician is assigned. MEDCOM physicians work inside of clinics underneath clinic or hospital commanders whereas FORSCOM physicians work assigned to military units, beneath military unit commanders. MEDCOM military doctors have direct relationships with their supervisors (who fall under hospital commanders) and maintain indirect relationships with military commanders of the soldiers and family members (patients) they treat. On the other hand, FORSCOM military physicians have direct relationships with unit commanders and only indirect relationships with the MEDCOM organization, which oversees medical credentialing and accreditation standards.

Of note, the military hierarchical system places importance on direct relationships within supervisory chains. Although hospital commanders maintain responsibility for actions of MEDCOM physicians, intermediate supervisors, such as clinic department heads, more typically influence physician actions—the hospital commander may only have an indirect relationship with a military physician in his command. MEDCOM physicians have indirect relationships with military commanders, who are responsible for soldiers; but, soldiers have direct relationships with military physicians for patient care. Military unit commanders, on the other hand, have direct relationships with FORSCOM physicians, who serve as part of their personal staff. FORSCOM physicians have indirect relationships with clinics and hospitals; MEDCOM units oversee FORSCOM physician clinical credentials, quality of care provided, and monitor efficiency through electronic medical records and standardized appointment scheduling. MEDCOM units do not formally evaluate FORSCOM physicians outside of medical credentials or patient safety.

Unit commanders influence soldiers through intermediate supervisors such as platoon leaders and squad leaders. Thus, soldiers typically have indirect relationships with commanders as opposed to direct ones. Laws protect patient privacy and interactions between soldiers and military physicians. Military clauses provide a command privilege and exception to patient privacy laws when health may affect a soldier's performance or ability to accomplish assigned missions. Military doctors can share the minimum amount of medical information necessary for commander's to make decisions. Communication is limited to an individual soldier's commander—direct communication to first line supervisors and other members of the chain of command is prohibited unless the patient consents for physicians to share information with them.

Typically, FORSCOM units have military physicians and PAs. PAs require direct (medical) supervision from a physician. Most military PAs function independently—some only have indirect medical supervision from MEDCOM facilities. Ideally, soldiers in FORSCOM units receive medical care from FORSCOM providers, which facilitates access to care and communication within the organization. However, soldiers often see MEDCOM providers. Likewise, soldiers may receive medical consults to civilian doctors working in the community. Typically, medical consultants have indirect relationships with military physicians and questionable relationships with unit commanders (the doctor-commander relationship is often deferred to the soldiers primary care physician).

Providers may provide written recommendations to soldiers and commanders through profiles. Profiles are written documents that describe a medical problem in general terms and recommend specific activity limitations along with medically preferred alternatives. Profiles serve as recommendations; military commanders can choose to

enforce or override them. Appendix D provides an example profile form. Civilian and military medical standards and Army regulations, which at times conflict with each other, influence physician decisions and recommendations in patient care. Military commanders have access to Army regulations, including medical regulations, which drive their understanding of military medical standards and provider competency.

Ultimately, this complex network of relationships influences military physician decision making and allows for identification of specific tensions currently described under the umbrella of mixed agency problems. In the case studies that follow, I will use this web of relationships within the context of the IAD framework to create models and identify, with enhanced granularity, tensions military physicians commonly experience.

Case Studies

This section applies the IAD framework to a series of case studies—many are interrelated and build upon each other. Cases 1-8 review scenarios concerning physician treatment of soldiers for specific conditions and involve decisions regarding duty limitation recommendations. The cases discuss the compatibility of duty limitations with military service in the context of competing incentive structures for physicians, soldiers, and military commanders. Next, cases 9-11 demonstrate the power of context in shaping decisions. Cases 12-15 highlight tensions involving behavioral health treatment and initiatives. Cases 16-17 discuss moving soldiers with medical problems and medically clearing soldiers for deployment. Cases 18-24 involve deployment-related scenarios. Cases 25-30 examine miscellaneous scenarios related to current institutional practices within the MHS. Cases 31-34 discuss administrative scenarios. Finally, case 35 shows the importance of individual narratives influencing actions by discussing Nidal Hasan.

Case 1: Cold Symptoms and Quarters

A soldier presents to the clinic with cough and cold symptoms. He feels terrible with runny nose, watery eyes, and just wants to go home to sleep. If he was not a soldier, he would call in sick and not come to work. The soldier is otherwise healthy and without fever. The soldier does not want to spread the infection to others. He has not tried any over-the-counter remedies and presents to the military physician for care. The doctor expects symptoms will continue for two to three days before improving significantly.

For a physician, treating colds is basic medicine, especially for healthy adults when antibiotic discussions are unnecessary. It is easy to treat symptoms, recommend rest, and educate adults on washing hands and limiting spread of disease. Most physicians find it easy to provide notes recommending rest or excusal from work when patients exhibit signs of viral illness and request time off. In the MHS, providers are evaluated on patient satisfaction further incentivizing providing a patient note when requested. In the Army, physicians can create a sick slip and place a soldier on quarters for up to 72 hours.

Physicians provide soldiers and their commander's with "recommendations" about duty limitations. Rules-in-use surrounding quarters recommendations are unique. Unlike profiles for other injuries, quarters is viewed as a physician's order that trumps a commander's input. I have heard military physicians declare that "quarters" is the one physician's order military commanders cannot overturn, but I cannot find documentation in Army regulations to support that claim. Nonetheless, given the short duration of limitations, most commanders accept quarters recommendations without question.

It seems simple to place a soldier on quarters when they are sick. However, defining sick is often as subjective as estimating an appropriate recovery time. When a

doctor writes a quarters slip for one soldier, he sets a precedent. While doctors keep individual patient encounters confidential, soldiers openly speak with each other about their treatments. Some soldiers, when feeling poorly, actively seek out providers who offer quarters slips more liberally. Consistency is important as variance in patient care may engender patient complaints. However, when doctors provide consistent treatment, many soldiers may be sent home from work simultaneously (after all, illness typically spreads to closest contacts, right?). Commanders struggle to conduct training and accomplish missions when soldiers vanish to quarters every time their eyes water or their noses run. This creates tension between commanders and physicians. Commanders view physicians as not understanding military needs and missions and become more skeptical of physician recommendations with concerns soldiers may be overly coddled.

Many physicians fail to consider that military commanders can send sick soldiers home without a quarters' slip signed by a physician. Doctors can recommend soldiers only complete mission-essential administrative work and advise them maximize rest and avoid strenuous exercise while ill. Physicians can order soldiers to carry hand sanitizer, instruct on proper hygiene, and provide soldiers facial masks. However, these actions take more time than checking a preformatted box stating “quarters” on the Army-sick slip and writing “x24 hours” (appendix E contains an example sick slip). Likewise, not recommending quarters may leave patients unhappy when they leave the office.

Physicians, incentivized by productivity, efficiency, and patient satisfaction, may believe quarters slips are mutually beneficial to the patient and themselves. However, physicians may fail to appreciate the potential negative mission effects quarters slips can generate. At the opposite extreme, some physicians may place the military organization's

needs above an individual patient's and tell soldiers to "suck-it-up and drive-on," failing to provide expected medical treatment. The classic mixed agency scenario presents as medically preferable recommendations versus military preferable recommendations. However, physicians can take time creating recommendations supportive of both a patient's medical needs and the military organization's needs. In doing so, physicians still may experience tensions from acting against incentive structures: risking decreased efficiency, reduced patient satisfaction, and potentially negative performance evaluations.

Case 2: Ankle Sprains and Fully Medically Ready

Soldiers frequently sprain ankles. Recovery times vary between soldiers, but after two to three weeks of relative rest, most soldiers return to regular activities. The question providers must answer is how to recommend protecting a soldier from further injury while he recovers from the initial one. Providers can advise soldiers of suggested limitations, but soldiers may obey orders from their ranking supervisors that contradict provider recommendations. Thus, providers should communicate their advice regarding duty restrictions to a soldier's commander to protect the soldier from additional injury.

In the Army, physicians recommend duty limitations through medical profiles or sick slips. Profiles are formalized documents with multiple check boxes providing specific recommendations regarding all soldier tasks deemed necessary for deployment and physical fitness tasks conducted during periodic physical fitness examinations. Profiles provide space for additional instructions and can be written for any length up to 90 days (when written by a physician). New electronic profiling systems replace previous paper documents and allow for more efficient tracking and extension of profiles. In addition, the electronic profiling system enhances communication between physicians,

soldiers, and commanders because each can access the document electronically. Sick slips on the other hand, are informal, non-electronic, and used for periods less than 30 days. Sick slips provide less specific information regarding soldier duty restrictions unless a provider takes time to write out instructions in the limited space provided (see appendix D and appendix E for examples).

When physicians believe written recommendations are necessary (or military units request physician evaluation), physicians must choose between the short handwritten sick slip and the longer electronic profile form. Rules-in-use vary across individual units, but most facilities have placed increased emphasis on using the long profile form for limitations greater than seven days even though regulation allows use of the sick slip for up to 30 days. Some commanders send soldiers back to physicians with valid handwritten sick slips refusing to follow recommendations unless they are formalized in electronic profile forms. Sick slips are easy to forge and harder to track. If providers ultimately invest more time to create profiles after attempting shortcuts with sick slips, feedback may encourage use of electronic profiles up front. The benefits of the electronic system appear substantial in comparison to the sick slip.

Unfortunately, the electronic system is more difficult than it sounds. The profile system requires different software and permissions than the electronic medical record. Permissions are granted to providers following one-time self-study online training (AMEDD 2011). The program offers pre-manufactured templates to help providers save time but automatically calculates duty limitation codes that are inconsistent with regulations. Thus, providers must manually correct the computer generated errors in order to properly complete the form. Failure to change the default settings results in

profiles coded with severe duty restrictions and may reduce provider credibility among commanders. The profile form requires scrolling through several screens and requires completion of certain fields before physicians can sign them. The form requires doctors to estimate the date a soldier will be fully medically ready (FMR), which is often difficult to do. The system is cumbersome, and the training places greater emphasis on appropriate profiles than how to navigate the electronic system.

Electronic profiling may result in unintended consequences. When a soldier receives an electronic profile with significant duty limitations (they cannot complete a physical fitness test or are restricted from a basic soldier task required for deployment), the profile is labeled with a numerical designation showing the soldier is “non-deployable” until the profile expires. Military commanders are incentivized to maintain at least 95 percent of their unit FMR. Electronic profiles decrease a unit’s FMR statistic.

A provider can extend the profile as long as the soldier returns before it expires. However, appointment scheduling systems make it difficult for soldiers to follow-up on short one- to two-week intervals. If soldiers have continued problems and follow-up after the profile expires, the doctor must restart the lengthy profiling process again. Over time, feedback may encourage providers to write longer profiles when soldiers initially present for care, which negatively influences a commander’s FMR statistic. This negative effect may persist, even after the soldier recovers. Soldiers presenting to clinics for removal of profile restrictions reduces availability of appointments for others needing care; the physician’s time is spent removing profiles when he could be caring for another soldier.

Of note, profiles are intended to protect soldiers even after they expire. Protocols allow a recovery period twice the length of the profile, up to 90 days, before soldiers are

expected to function fully. This built in protection allows for reconditioning. A soldier who is placed on profile for two weeks after spraining an ankle theoretically has four more weeks to rehabilitate and return to full activity for a total of six weeks restriction. Rules-in-use differ. From the military perspective, profile expiration allows for complete return to activity with the exception of a graded physical fitness test. Thus, many soldiers return for new limitations when their initial profiles expire. Medical rules-in-use require evaluating and treating pain at every visit, further influencing physicians to recommend restrictions to prevent pain. Prolonged protection results in more deconditioning, which may bring additional pain as activity resumes, and also contributes to the profile cycle.

When it comes to recommending restrictions for soldiers with relatively benign injuries, providers may experience tensions differently if assigned to MEDCOM or FORSCOM units. Increased trust between military commanders and FORSCOM doctors may enhance a FORSCOM physician's ability to use sick slips, track restrictions, and avoid reductions in the FMR statistic for minor problems. MEDCOM providers may experience tensions balancing their efficiency with electronic systems, providing proper medical restrictions for a given injury, and patient satisfaction. Tensions between military commanders and the MHS grow with inconsistent recommendations between health care providers and from unintended consequences of the profiling system.

Case 3: Bunions and Surgery: Elective versus Necessary?

Bunions are deformities where the big toe attaches to the foot. Bunions are problematic when they cause pain and interfere with activities. Some people with bunions elect to have surgery to repair the deformity in hopes to alleviate pain and improve functioning; however, overall satisfaction with surgery varies. Bunion surgery is not

considered medically necessary (people can live in good health without surgery), but it may improve pain and appearance of the foot. Some soldiers develop painful bunions. When bunions are painful and debilitating, soldiers may request surgery for the chance of improved symptoms, understanding they will require significant duty limitations for several months following the surgery.

There are many nonsurgical treatments for bunions, which often provide suboptimal results. Over 100 different surgeries exist to fix bunions, but no individual surgery is superior over another.⁸ Unless incentivized by the procedure in some way, many providers only recommend referral for bunion surgery when patients are severely limited by pain or physical deformities of the foot exceed certain specifications.

Soldiers with severe activity-limiting foot pain from bunions may benefit from surgery, but only after a lengthy rehabilitation period. Medical providers strive to provide patients the best available treatments tailored to meet their medical needs and preferences, but through a stepwise progression. The medical evaluation and treatment cycle is a lengthy process employing several treatment modalities sequentially, each requiring several weeks of trial before being considered a failure.⁹ Soldier training exercises may delay soldier availability for medical follow-up and treatment. Soldiers

⁸One teaching in medical school is that the greater number of surgeries available without any demonstrating superiority means surgery is not very effective—if a superior surgery existed, less surgeons would feel the need to explore new techniques.

⁹Conservative treatment modalities may include bunion guards, anti-inflammatory medications, and medication injections. A common medical mantra is to recommend surgery only after conservative treatment fails. Current research in the treatment of bunions is examining more aggressive treatment (surgery) before conservative treatments. Bunion surgery is a particularly sensitive topic because indications for surgery include both pain and cosmesis, which are covered differently by insurance.

may request surgery after many months of failed treatments and ongoing pain, knowing surgery might improve symptoms.

However, Army regulation limits time soldiers can spend with physical duty limitations related to a given medical problem to one year; and, if soldiers are unlikely to return to duty by the one year mark, regulation requires a permanent profile. If soldiers are unable to perform military necessary tasks, the profile should indicate a significant level of restriction (a level “3” profile), and the soldier should undergo a medical evaluation board (MEB) to determine military retention. If one refers patients for bunion surgery based on severe refractory symptoms and surgery requires a significant recovery time, a large percentage of soldiers referred for bunion surgery may require permanent profiles and MEBs. If limitations from bunions do not limit military duty significantly, one may question the necessity for bunion surgery in the first place.

Regardless of the regulation design (one year of limitation or referral for MEB), the rules-in-use lead towards surgery. If a permanent profile is written before surgery and recommends MEB, the soldier typically gets offered a surgery to allow a chance to return to full duty before the MEB (if the soldier wants to stay on active duty). Usually, a physician or podiatrist speaks up on the soldier’s behalf noting surgery may improve symptoms. Meanwhile, podiatrists acknowledge the elective nature of the procedure and endorse long waiting lists before scheduling the recommended surgery. Once a surgery is performed, soldiers typically receive a full recovery period (six months to a year) before an MEB is initiated, even though it means soldiers remain on profile well over one year. The soldier, during the entire treatment process, belongs to his unit. As long as the soldier is assigned to the unit, the unit cannot get a replacement for the injured soldier.

Bunions exemplify just one of many elective surgeries available to soldiers. Most of these surgeries are orthopedic in nature and available only after prolonged duty impairment or progressive pain. Medical necessity, probability of success, and duration of recovery are important questions patients desire answers for before surgery, but these topics are rarely discussed with regards to military service regulations and fitness for duty. New electronic profiling systems allows for more central observation of soldiers on profiles for prolonged periods of time. Military force structure changes and reduction in force size gives less room for medically unfit soldiers to remain on active duty. Thus, tensions will grow as patients and providers battle between medical nuisances versus true impairments and increased enforcement of medical standards for retention on active duty. Variances in medically indicated treatment, patient desires, provider incentives, military requirements, and needs of individual military units all contribute to tensions when it comes to discussing elective surgery with soldiers.

Case 4: Back Pain: Evaluation and Treatment

Back pain is another common ailment affecting society and soldiers. Many patients with back pain request magnetic resonance imaging (MRI) to evaluate their symptoms, though most times imaging is not clinically indicated. In the last 10 years the use of MRIs has skyrocketed, increasing over 300 percent, but without improvement in patient symptoms (Deyo et al. 2009). MRIs do not reliably explain back pain—studies demonstrate upwards of 50 percent of back MRIs reveal abnormalities in persons without any symptoms (Jenson 1994; Boden et al. 1990). CPGs outlining best practices for back pain recommend against routine imaging for most low back pain reserving MRI for people with “red-flag” symptoms or for surgical evaluation (Choe et al. 2007). Various

incentives encourage providers to order back MRIs even though MRIs do not typically result in improved patient outcomes and may even increase risks to patients through controversial surgeries (Deyo et al. 2009).

The military promotes overuse of MRI by requiring imaging results as part of MEBs for soldiers with back pain. Army medical standards recommend soldiers for referral to MEB when back pain limits duty and fails to respond to conservative treatment (US Army 2011). The regulation does not specify diagnostic procedures. Nonetheless, rules-in-use require back MRIs for MEBs related to back pain.

Before MEBs begin, soldiers require permanent profiles outlining significant duty limitations. These profiles need two signatures—one coming from an approving authority, typically an MEB physician. Approving authorities examine medical records to ensure soldiers have completed evaluations prior to validating profiles. They typically require an MRI before approving profiles for back pain because MRIs assist the Department of Veteran's Affairs (VA) in assigning disability benefits. Thus, clinics exempt soldiers from prerequisite imaging criteria and willingly approve MRIs for soldiers with back pain. Meanwhile, clinics continue to educate the remainder of the patient population about unnecessary back MRIs in accordance with CPGs to decrease inappropriate use (Darnall Army Health Clinic 2011).

Tensions arise as military physicians, wishing to follow accepted medical standards of practice and refrain from ordering unnecessary MRIs, must order studies for technical reasons to facilitate a soldier's journey through an administrative process. Ethical tensions may arise as soldiers discuss disability benefits associated with imaging when providers understand MRI results and physical symptoms are often unrelated.

Moreover, soldiers with unrevealing imaging and significant pain may feel invalidated and upset creating tensions between them and their physicians. Likewise, some soldiers complain of increasing pain when imaging reveals abnormalities in locations different from their initial complaints. Abnormal imaging can validate and increase a patient's symptoms. Case 8 for discusses additional tensions related to the MEB process.

Case 5: Dislocating Shoulders

Shoulder dislocations may occur in isolation, but often times they are recurrent. Army regulation dictates soldiers with recurrent shoulder dislocations, unrepairable by surgery or when surgery is contraindicated, fail to meet medical standards and warrant referral for MEB (US Army 2011). Some soldiers receive shoulder surgery two or three times after recurrent dislocations and then face continued shoulder problems in the form of additional dislocations or a "frozen shoulder," for which additional surgery is recommended. Soldiers typically require in excess of six months (up to one year) to recover from shoulder surgery before they are cleared for deployment. Thus, soldiers with recurrent dislocations and recurrent surgeries spend prolonged periods of time unable to perform duty. Frequently, permanent profiles and MEB referrals are postponed because soldiers may improve with surgery. Like bunion surgery, shoulder surgery after dislocation is elective.¹⁰ However, on the scale of relative medical necessity, shoulder surgery usually provides substantial benefits; it increases a soldier's ability to function and decreases time away from work secondary to dislocations and the use of slings.

¹⁰Elective procedures are not necessary to keep "life, limb, or eyesight," but they may improve patient symptoms. Determining relative medical necessity is subjective. However, surgery that improves body mechanics and functioning is often considered more necessary than surgery that improves cosmesis (and pain).

Rules-in-use allow for recurrent surgeries provided an orthopedic surgeon recommends surgery and believes a soldier may benefit from it. However, profiling guidelines mandate a permanent profile after one year and referral to MEB if soldiers are limited from performing key tasks even though medical retention criteria technically allows another chance. An optional 11-hour course sponsored by the Uniformed Services University of the Health Sciences discusses referral processes for MEBs and the integrated disability and evaluation system (IDES).¹¹ This military medicine training uses a recurrent shoulder dislocation case to illustrate that a provider should immediately write a permanent profile referring a soldier to MEB if a soldier with a history of surgery after shoulder dislocation subsequently redislocates his shoulder six months into rehabilitation—the soldier is not expected to return to full duty within one year of the initial injury (MHS Learning Portal 2011). I explicitly remember this case because recommendations and regulations completely contradict accepted rules-in-use. I have personally been involved (within a two year period) with the care of over a half dozen soldiers receiving multiple shoulder surgeries for recurrent shoulder dislocations.

Surgeons typically enjoy working in the operating room and are incentivized to perform surgeries. This may indirectly influence recommendations for surgery in hopes to provide the soldier another chance. If not involved in the first surgery, surgeons may be wary of the initial surgical approach and think they can perform a better job. If a general orthopedic surgeon completed the first surgery, the soldier deserves follow-up

¹¹I stumbled upon this training when assuming duties as a physician caring for soldiers in the Warrior Transition Unit (WTU), a unit designed to assist soldiers with multiple medical problems requiring frequent medical appointments and case management. The training includes four modules and compares Army, Navy, and Air Force systems and regulations governing medical separations from military service.

with a shoulder subspecialist. Specialist recommendations, inconsistent with the intent of Army medical standards and regulations, contribute to tensions. Primary care physicians balance military regulations, soldier's needs, specialist recommendations, and needs of the military when providing medical care. But, primary care physicians are often circumvented in treatment plans once specialists become involved, increasing tensions. The soldier may require surgery, but the question is when? If the injury and need for surgery is recurrent, should the soldier undergo profiling and potential MEB prior to surgery? Should the soldier receive surgery while on active duty? Or, if the soldier no longer meets medical retention criteria, should treatment be deferred to the VA?

Case 6: Soldiers with Diabetes

Medical standards of fitness allow soldiers to serve on active duty with diabetes, provided soldiers can control their disease with diet and exercise alone. Use of medicines for diabetes results in medical disqualification and referral for MEB. Metformin is a first line medication to treat diabetes and offers protective health benefits for those with the disease. Metformin is also used to treat other conditions such as polycystic ovarian syndrome (PCOS) and metabolic syndrome; the medication may prevent development of diabetes. No regulations specifically ban the use of metformin in soldiers. Regulations only ban the use of medications (metformin) to treat diabetes. Thus, providers may prescribe metformin to soldiers with PCOS and metabolic syndrome and help prevent the development of diabetes. However, prescriptions of the same medication to soldiers with

diabetes mandates referral for MEBs, even when soldiers technically controlled their diabetes (by the Army definition) with diet alone prior to starting the medication.¹²

In this regard, providers face tensions informing diabetic patients that beneficial treatments exist, but beneficial treatments may result in an MEB and possible separation from the military. Soldiers may defer treatment to avoid potential separation, and they may reduce medical follow-up to prevent identification of worsening disease. The Army MEB process does retain some soldiers with diabetes on active duty; however, as the military downsizes, soldiers increasingly expect separation over retention. Meanwhile, non-diabetic patients can take the same medication without defying medical standards.

Military medical facilities are accountable health care organizations and are incentivized to meet treatment standards of care for certain diseases, including diabetes. Accordingly, the military uses electronic health records and databases to query records to identify patients taking specific medications, such as metformin, to identify individuals with diabetes and enforce compliance with CPGs. Individuals taking metformin for reasons other than diabetes can get added to diabetes action lists.¹³ The unintended consequence results in non-diabetics being treated as diabetics and encouraged to obtain unnecessary testing and procedures. Likewise, inaccurate labeling of diabetics from

¹²Medically, hemoglobin A1C is a laboratory marker suggestive of diabetes when greater than 6.5. Providers monitor the A1C level to monitor diabetic control. The military considers diabetes controlled when the lab value is less than 7.0. Diabetes control is influenced by insulin resistance, which is related to weight. Metformin works by decreasing glucose (sugar) production in the liver. It is also associated with weight loss, which can decrease insulin resistance and improve diabetic control. Metformin is typically well tolerated and can help prevent cardiovascular complications of diabetes. Many providers do not wait for an A1C level to exceed 7.0 before prescribing metformin.

¹³As of 2012, systems flagged all metformin use with diabetes, at least concerning treatment of the patient population at my duty station in Germany.

medication profiles could potentially direct soldiers towards MEBs, even without medically qualifying diagnoses.

Metabolic syndrome and PCOS significantly increase a person's subsequent risk of developing diabetes. A soldier with metabolic syndrome or PCOS may develop diabetes while taking metformin, but the disease will more likely be controlled because it is already being treated. Diagnosis of diabetes requires abnormal lab work. Labs for diabetics taking metformin and non-diabetics taking metformin may be identical, yet by regulation, one requires an MEB and the other does not. Once a non-diabetic starts taking metformin, a military physician may face tensions in trying to stop the medication knowing follow-up labs may identify the soldier with diabetes. If diabetes is discovered, the soldier can no longer take metformin (the appropriate treatment) unless the soldier desires referral for MEB, even though he previously took the medication without concern. Then, it may seem logical to not stop metformin for labs and to avoid trying to make a diagnosis of diabetes. However, patients with diabetes require additional monitoring and have different disease-oriented outcome goals. Therefore, physicians may wish to make the diagnosis so patients can benefit from recommended surveillance. Likewise, soldiers may prefer to establish a diagnosis of diabetes while on active duty (as opposed to after separation) if this increases long term medical benefits for treatment of the chronic disease after military service is complete.

Case 7: The Permanent Profile

The Army only permits temporary profiles for up to one year for a given condition before requiring permanent duty restrictions (US Army 2011). Likewise, the Army restricts soldiers from attending various schools or changing duty stations when on

temporary profiles. However, if soldiers have permanent profiles, they can complete schooling necessary for career advancement. Provided soldiers can complete essential functional activities¹⁴ and at least one aerobic event on a physical fitness test, soldiers can have a permanent profiles allowing alternate events on physical fitness tests without needing to go through the MEB process. Oftentimes, a soldier or his chain of command will approach a physician making a request for a permanent profile showing that the soldier has been on a temporary profile for upwards of one year. They may also request a permanent profile while a soldier is early in the recovery process from a new injury because the soldier requires schooling for promotion; physician action is urgently required to ensure the soldier's acceptance into the school. Physicians may face tensions writing for "permanent" restrictions when soldiers have "temporary" problems.

In practice, it is very easy to write a permanent level "2" profile allowing for an alternate aerobic activity on a physical fitness test. Many soldiers prefer walking or biking (a pass or fail event) compared to running, which is timed. Only one physician's signature is required for this type of profile, and it may satisfy both soldiers and their commands. Regulations state profiles should be reviewed and updated annually, which provides checks and balances within the system—if the profile was written prematurely one can downgrade it at a subsequent follow-up. In reality, permanent profiles are not thoroughly reviewed during annual check-ups.

¹⁴Soldier essential tasks are each listed separately on the Army profile form and include: carrying and firing an assigned weapon, evading direct and indirect fire, wearing a helmet, body armor, load bearing equipment, and military boots and uniforms at least 12 hours daily, wear full chemical protective gear at least two hours daily, move 40 pounds at least 100 yards when wearing full combat gear (including weapon), and be able to live in austere environments without worsening of medical conditions. Failure to complete any of these tasks results in a minimum level "3" profile and referral to MEB.

Some soldiers require permanent profiles for chronic medical conditions, and soldiers may try to pick and choose limitations in accordance with their own preferences. When providing permanent profiles, physicians should inquire about a soldier's ability to complete deployment limiting activities. Soldiers often subjectively state they can do deployment tasks without difficulty, but they cannot run. Soldiers with excruciating back pain will state running short sprints and carrying a full combat load cause fewer problems than running two miles. There are no specific criteria to test the military necessary tasks, and a patient's subjective word is often satisfying to providers. If providers question soldiers about apparent discrepancies in subjective complaints, soldiers may note that the military essential tasks are not a necessary part of their schooling or everyday work.

Many military schools require a physical fitness test upon school initiation, but physical activity is not required after the school starts. Likewise, several military specialties conduct office work (paralegal assistances, finance clerks, laboratory technicians, etc.); basic military requirements need not apply to function in their everyday job. Some providers facilitate permanent profiles allowing soldiers to walk instead of run so they can pass their physical fitness test, even though wearing combat gear causes more significant pain and worsens medical symptoms.

Just as some soldiers may request a permanent profile to allow for entrance to a school, others may request removal of a permanent profile for similar purposes. Soldiers may learn of new career paths, some which offer large bonuses (e.g., explosive ordinance disposal), but these specialties require complete absence of restrictions to join. Soldiers in good health with profiles prohibiting running after knee surgery may request removal of limitations so they can accept a sign-on bonus and change specialties. If an orthopedic

specialist provides a permanent “no-running” profile to a soldier, a family physician may be reluctant to downgrade it. A soldier may reassure his provider noting he (the soldier) can always return to a permanent profile once accepted into the new specialty if the knee pain returns. Ethically, physicians may find it wrong to remove restrictions when soldiers acknowledge potential intent to return to those restrictions after accepting bonuses for personal gain, and the soldier’s proposal can create tensions. Providers may not ask questions or learn why soldiers wish restrictions to be removed. Tensions may arise for receiving units expecting healthy recruits only to receive soldiers requiring limitations.

Case 8: Making the MEB Referral

Previous case studies introduce profiles and MEBs, suggesting physicians may experience tensions related to the MEB referral process. This case further evaluates MEB related tensions. Physicians make MEB referrals by writing permanent profiles for soldiers annotating significant duty limitations and obtaining a cosignature from an approving authority. The approving authority, typically an MEB physician, is distanced from the actual care of the soldier. Nonetheless, the MEB physician is responsible for reviewing the soldier’s medical history and dictating a narrative summary describing the soldier’s medical history, injuries, treatments, and current limitations. The MEB physician is monitored for efficiency in completing narrative summaries and helping soldiers through IDES where the VA assigns the soldier disability benefits.

Ideally, soldiers complete medical work-ups and exhaust treatment options prior to initiation of the MEB process. The MEB process receives criticism for being long and inefficient. Many scrutinize the time it takes between soldiers entering the process and receiving a final disposition. To improve MEB processing times, referring providers are

charged with ensuring complete diagnostic work-ups prior to placing referrals, even if some work-ups are not clinically indicated (back MRIs) or will delay inevitable medical separations. This creates tensions as approving authorities may request additional studies or treatment before approving profiles when soldiers clearly meet criteria for MEBs. Additional tensions arise when soldiers have multiple medical problems, and one ailment meets criteria for MEB while other problems warrant additional evaluation and treatment.

The intent behind the MEB process and IDES is to refer soldiers to MEB when disqualifying conditions are identified (MHS Learning Portal 2011). The permanent profile should only reflect limitations related to disqualifying medical conditions, but temporary profiles for conditions actively under investigation may accompany the permanent profile. Nonetheless, providers wishing to avoid returned profiles may delay writing permanent profiles (even when indicated) to allow for further evaluation of other potentially limiting conditions so they too, can be added to the MEB referring profile.

Providers require significant time to consolidate and review patient medical records, which distracts from efficiency in patient care and workload. Problems with continuity of care and frequent transfer of patients from one provider to another (through regular military moves) increases the difficulty in summarizing patient problems; also, it decreases a provider's feeling of responsibility to complete the process (the next provider do it). Many soldiers requiring MEBs are complex and dubbed "difficult" patients by medical providers, which can result in stressful clinical experiences. By initiating the MEB process, the provider essentially invites the difficult patient back for recurrent visits, which may result in more stress and frustration for the provider. Frequent visits and corresponding friction become a cyclic drain on efficiency and productivity.

In addition, providers that lack objective medical evidence to explain patient complaints may be reluctant to refer soldiers for MEB because they (the providers) do not feel the soldier should have any limitations. However, some soldiers are not functioning in their units due to ongoing medical problems. Accordingly, the soldiers' commanders may seek referrals for MEBs. These conflicting observances create tensions. Some soldiers desire an MEB and others do not. Providers, incentivized by patient satisfaction and dis-incentivized by the tensions above, may neglect referring soldiers to MEBs, even when clearly indicated, when soldiers express interest to stay in the military.

Military providers in FORSCOM units experience tensions in observing negative influence medically dysfunctional soldiers have on their units. These providers may wish to expedite treatment so soldiers can return to duty or facilitate the MEB process so the unit can obtain a replacement soldier. Military providers in MEDCOM facilities are less familiar with these negative influences and may not see the urgency in evaluation, treatment, or separation. Medical clinics and hospitals maintain their own pace of operation often distinctly slower than military units.

Tensions arise as providers in FORSCOM units refer patients to consultants working in MEDCOM units for evaluation, treatment, and recommendations regarding MEBs. At times, consultants feel soldiers require MEBs, but they fail to communicate their recommendations to the primary care provider responsible for making the referral. Instead, incentivized by production and patient satisfaction, consultants may offer procedures and surgeries with high reimbursement rates and productivity markers, which also increase patient satisfaction by validating patient concerns for medical problems. Primary care providers wait for consultants to state the patient should have an MEB, but

consultants are reluctant to make such recommendations in writing when additional treatments exist that may potentially improve a soldier's functioning.

At times, consultants recommend MEBs, but patients request second opinions, which they are entitled to. These second opinions, when incongruent with the first, may increase tensions and delay the MEB process. Technically, only one second opinion is necessary. However, oftentimes third or fourth opinions are granted until the soldier finds treatment recommendations he desires. Primary care providers or consultants can oppose the recommendations the soldier wishes the military to follow but doing so creates additional tensions and further delays the MEB process.

Case 9: Treatment After MEBs: Now What?

MEBs do not mandate separation from military service. Instead of separating a soldier, the board may decide the soldier possesses unique skills, demonstrates good character, and maintains significant potential to contribute positively to the military profession, even if unable to do key soldiering tasks or deploy. The military invests significant resources in training soldiers; subsequently, soldiers become important resources for the military. A soldier with diabetes controlled with oral medications or a cancer survivor may have limitations regarding deployment yet possess unlimited potential to serve and contribute to the profession of arms. Even soldiers with duty limited musculoskeletal problems are retained on active duty in a non-deployable status.

Nonetheless, soldiers with permanent level "3" profiles may present to medical care with worsening of their medical conditions. A diabetic may present in follow-up and require a change in oral medications or insulin. A soldier with chronic back pain may suffer more recurrent flares and back spasms and require increasing time off from work.

Physicians may discuss concerns that an MEB is needed, and soldiers may report they already completed an MEB, hence suggesting a new referral is not necessary.

Some physicians may feel relieved to learn of an MEB completion thinking this alleviates their duty to restart the MEB process. However, decisions to retain a soldier were based on the medical condition at a specific time, and changes or worsening of the medical condition may warrant a new referral for MEB. Physicians do not have access to MEB results within a patient's medical record, and they may have an incomplete history as to the patient's narrative summary and official MEB recommendations. Obtaining records from old boards is time consuming, and providers may wish to restart medical work-ups rather than track down previously available information.

Force structure changes within the Army create additional tensions. Some people believe MEB dispositions retain soldiers more frequently during wartime compared to peacetime. Once retained on active duty through the MEB process, as long as medically stable, people believe the soldier cannot be medically discharged. Now, with the declining war effort and planned reductions in force strength, soldiers undergoing initial MEBs are more likely to be separated than retained. Thus, some believe a soldier retained on active duty after an MEB for back pain during wartime can stay on active duty whereas a similar soldier undergoing MEB for back pain during peacetime is more likely to be separated. Should the military reprocess all MEBs reviewed during wartime?

Case 10: Executive Medicine: Do Standards Change with Rank?

Military systems value rank. Many military organizations alter regular activities when entertaining generals or higher-ranking officers. Military commanders have significant responsibilities and limited time; so, all subordinate schedules revolve around

the commander's schedule. Should medical care revolve around the commander? Does a commander's rank or position alter priorities when it comes to medical care or triage?

Tensions may differ between FORSCOM and MEDCOM physicians. FORSCOM physicians, assigned to military units, work directly for military commanders—military commanders rate FORSCOM physicians. Thus, incentive structures may encourage FORSCOM providers to treat their commanders with favoritism. The provider may value patient care and treating individuals based on scheduled appointment times during routine clinic or by medical necessity during triage. Likewise, providers may favor equal treatment of soldiers and commanders based on medical standards of care. The discrepancy between a physician's values and incentive structures creates tensions.

MEDCOM providers do not work directly for military commanders, thus incentives from evaluation reports should not influence care. However, in many regions MEDCOM suffers a negative reputation in the eyes of FORSCOM commanders. One key aspect of tensions is appointment availability and wait times for patients—soldiers in military units require prompt treatment. Military schedules and timelines are fluid with changes making scheduling future appointments very difficult. Some MEDCOM units reach agreements with FORSCOM units to conduct executive medicine ensuring senior officers and noncommissioned officers (NCOs) can obtain immediate medical care when requested, thereby increasing access to care (at least among senior officials).¹⁵

¹⁵I served at one MEDCOM facility that extended an executive medicine policy to all ranked Lieutenant Colonel and above, as well as their family members, which allowed for immediate access to care, 24 hours a day. After hours care and treatment of officers were largely transparent to me. However, I distinctly remember family members walking into the clinic and taking advantage of this policy for non-urgent issues and disrupting previously scheduled care for other patients.

MEDCOM physicians become implementers of higher-level decisions following their superiors' orders, which may contradict their own beliefs. Tensions may increase when decision makers are administrative personnel and not involved in direct patient care where negative effects of executive medicine policies effect other patients and are most apparent. Executive medicine may reinforce ideological views of superiority of one group (commanders and command sergeant majors) over another group (soldiers and workers), and negatively influence command climates and unit morale. As junior soldiers and officers endure time in service and progress in rank, they may develop an enhanced sense of entitlement. Furthermore, the medical system may boost a physician's sense of entitlement based on the culture of advancement through the right of passage from medical school, to internship, residency, and onto becoming an attending physician. Thus, tensions among military physicians may fluctuate with regards to a military physician's rank or experience level.

Case 11: Does Longevity Matter?

Similar to the idea of executive medicine is the idea of altering treatment standards for patients with longevity in the organization, but soldiers may have longevity without executive level rank. Military longevity contributes to tensions in providing medical treatment because military retirement benefits increase with time of service. Although military retention standards are more relaxed than military entrance standards, should medical providers apply military retention standards differently between a soldier with 18 years of service in comparison to a soldier with only two years of service?

Consider a soldier with two years of service and severe debilitating back pain that limits duty performance. This soldier has little military experience but has a couple years

left in his enlistment before he can elect to terminate service. This soldier is not nearly eligible for retirement benefits. An MEB involves a lot of work, but if the soldier is medically unfit—he can separate, receive appropriate medical benefits, and allow a new soldier to enter the unit's ranks. Starting an MEB can prevent the soldier from transferring to a new unit and keep the soldier from continuing military service with debilitating pain.

Compare the previous soldier to one with 18 years of service suffering from identical medical problems. The second soldier has extensive military experience and training, and he fears losing significant retirement benefits from a potential MEB. He expresses the desire to retire. The retirement process is easier and faster than preparation and execution of an MEB. He may wish to avoid medical separation because it could prejudice future employment opportunities—job applications inquire about involuntary military separation and may trigger concerns, especially if manual labor is required for the job. A provider may feel the soldier is entitled to retire, receive benefits, and exit service and allow the soldier to exit the military while avoiding the work associated with an MEB. Typically, increased longevity comes with increased rank, and soldiers may have increased authority to limit their own activity without formalized profiles. Rank and experience fosters increased trust, which may influence provider actions.

Treatment may also differ based on provider perception of legitimate reasons for pain and discomfort. One may conceptualize that 18 years of military service provides greater explanatory power for back pain than just two years of service. Providers may consider or recommend more invasive treatments, to include spinal injections and back surgery, for soldiers with increased longevity on active duty. Providers may interpret military regulations in favor of expanded treatment for one soldier but advocate for an

MEB for another based on service longevity. Discriminatory treatment fuels tensions between patients, the military, and the MHS.

Unintended consequences may result from providing preferential treatment to soldiers with longevity. By assisting soldiers near retirement to receive certain treatments (back surgery) while on active duty, physicians may inadvertently undermine treatment options provided for retirees through the VA. Likewise, not all soldiers expressing intent to retire submit retirement paperwork. Failure to provide appropriate profiles allows soldiers to move to new locations. In addition, providers may move disrupting the continuity of patient care, allowing the medically restricted soldier to continue on active duty, and further enabling delay in retirement paperwork submission. This process can continue cyclically until retirement benefits are maximized based on time in service.¹⁶

Case 12: Anorexia and Eating Disorders

How should physicians treat soldiers with eating disorders? An eating disorder diagnosis, depending on severity and treatment response, may result in discharge from military service. Physicians, through evaluation and treatment, may discover their patients' problems were concealed and existed prior to service entry, which can result in soldiers being prosecuted for fraud, incentivizing soldiers to avoid seeking treatment. Unfortunately, failure to treat eating disorders increases likelihood of subsequent injuries and illness, both physical and psychological.

¹⁶Soldiers must submit retirement paperwork 120-365 days prior to retirement. Soldiers have a short window to apply for retirement if notified of orders to change duty locations. I have witnessed soldiers successfully change duty stations multiple times after retirement eligible with medical problems warranting permanent restrictions and MEB.

Tensions arise if physicians serve simultaneously as health care providers and investigators (Howe 2003, 351). The physician serves as an investigator because medical records, obtained through the confidential physician-patient relationship, are ultimately used to determine benefits when soldiers are medically discharged. Military physicians can game the system and label eating disorders as “adjustment disorders” to protect soldiers and prevent discharge or prosecution. The practice of using inaccurate diagnostic codes creates tensions, both for diagnosing physicians and for physicians who treat the patients in the future and inherit their medical records with ambiguous codes.

Physicians commonly use ambiguous diagnostic codes to protect patients and allow for treatment without referral for MEBs. This practice, based on rules-in-use, creates tensions and is not universally accepted. As soldiers and military providers change duty stations, ambiguous language provides unclear handoffs in patient care and can result in unintended consequences. Imprecise records can delay subsequent medical diagnoses and treatments. Physicians new to the patient’s care may start new medical work-ups, which can increase the patient’s frustration. Patients may complain, and new physicians may eventually learn the truth, previously hidden by the medical records.

Physicians may lose trust in other providers on the same healthcare team upon discovering a patient’s true diagnosis and the manipulation of records by prior doctors. The patient’s new provider must exercise caution in explaining procedures and gaining patient trust to ensure he (the new provider) does not undermine the qualifications of the patient’s previous provider. One doctor should not display his distrust of another doctor in presence of a patient as this can engender patient distrust of the entire medical system.

Additional tensions and unintended consequences related to use of ambiguous language is discussed in case 15 regarding the treatment of soldiers with psychiatric conditions.

Other tensions related to eating disorders include whether providers should screen for comorbid conditions. Eating disorders rarely occur in isolation. A majority of individuals with disordered eating also suffer from mood and-or anxiety disorders in addition to personality disorders (Braun, Sunday, and Halmi 1994; Couturier 2003). Successful treatment of eating disorders may require treatment of co-existing depression and anxiety symptoms, which do not exclude military service provided treatment does not impair military duty or performance. Nonetheless, many soldiers perceive psychiatric treatment reflects negatively on them as individuals and resist such diagnoses.

Discovery of a personality disorder is grounds for administrative, not medical, discharge. Current research suggests over 50 percent of those with eating disorders have personality disorders (Braun, Sunday, and Halmi 199; Couturier 2003). Should doctors evaluate soldiers with eating disorders for personality disorders? Personality disorders are “enduring maladaptive patterns of behavior, cognition and inner experience, exhibited across many contexts and deviating markedly from those accepted by the individual's culture. These patterns develop early, are inflexible and are associated with significant distress or disability” (American Psychiatric Association 2013). Personality disorders are pervasive and part of an individual’s character or make-up; medicine cannot change who somebody is.

The high correlation of eating disorders to personality disorders increases a soldier’s risk for ongoing problems, even after treatment for the eating disorder. Subsequent problems often disturb more than the individual soldier—they impair others

in the unit through maladaptive relationships. When physicians discover other medical (non-psychiatric) diagnoses that have strong relationships with other significant health problems, they routinely screen for the second problem after discovery of the first (PCOS and diabetes, diabetes and retinopathy, obesity and hypertension, etc.). Why should eating disorders be treated differently? Unlike comorbidities from other medical ailments, psychiatric comorbidities associated with eating disorders are often very difficult to treat. Physicians dislike uncovering problems they have difficulty solving. Furthermore, actively looking for comorbidities that may disqualify soldiers from service renews tensions that arise for physicians serving as health care providers and investigators.

Case 13: Profiles for Psychiatric Conditions

Previous case studies introduced the concept of profiles, the formalized written recommendations medical providers give to military commanders regarding limitations or restrictions pertaining to a soldier's activity. Profiles provide granularity based on functional body systems to include overall physical capacity (P), upper extremity (U), lower extremity (L), hearing (H), visual (V), and psychiatric (S) limitations. When physicians recommend duty limitations secondary to psychiatric conditions, they should indicate restrictions under the "S" category.

Many soldiers acknowledge problems with stress, anxiety, and depression, but they prefer keeping symptoms to themselves as they fear a negative stigma associated with behavioral health treatment. Soldiers are granted confidentiality if they self refer for psychiatric care. This confidentiality reassures soldiers that their evaluation and treatment remains private without their commanders finding out. Confidentiality is lost when a commander mandates a soldier see behavioral health. Thus, many soldiers that present to

behavioral health do so voluntarily under the assumption their communication is confidential and protected from commanders. The military, recognizing that psychiatric problems (depression, post-traumatic stress disorder (PTSD), etc.) are pervasive within the ranks, especially as a result from ongoing war, is actively implementing programs to reduce stigma associated with psychiatric care and to encourage the treatment of soldiers.

Tensions arise because soldiers are encouraged to seek stigma free, confidential care for behavioral health needs, but confidentiality may be lost when treatment involves medications. Official policies regarding treatment of psychiatric conditions attempt to protect soldiers by placing deployability restrictions on soldiers with behavioral health conditions until they demonstrate stability. All soldiers with psychiatric disorders must demonstrate at least three months stability from the last change in treatment to include introducing, changing doses of, and discontinuing medications before they can deploy, unless soldiers are granted a waiver (US Central Command (CENTCOM) 2011). Primary care physicians can treat and prescribe medications for depression, but behavioral health specialists must process all waivers. Creating waivers and ensuring stability may be difficult for specialists not actively involved in a patient's care, especially depending on the behavioral health specialist's relationship with the primary care provider. Limitations, meant to be checks and balances in a complex system, may incentivize qualified primary care providers to defer management of psychiatric conditions to behavioral health providers. Incentives to refer soldiers to specialists may result in delay of soldier care since there are more primary care physicians than behavioral health specialists.

The amplified medical guidance for deployment does not specifically address medical or psychiatric profiles. However, Army regulation mandates profiles when

soldiers have significant defects impairing military duty (US Army 2011). Inability to deploy is a significant duty limitation. Inability to deploy secondary to psychiatric diagnoses warrants a profile code under the “S” psychiatric designator. As profiles provide communication from medical providers to commanders, this profile code can create negative stigma and limit a patient’s perceived confidentiality for seeking help regarding psychiatric ailments. Thus, providers may neglect military profile regulations to protect patients and facilitate treatment, thereby providing psychiatric treatment to soldiers without providing profiles recommending duty limitations. Consequently, military commanders may overestimate their unit’s FMR status. When commanders take their units through pre-deployment medical screening, they learn a larger percentage of their unit is nondeployable for medical reasons than previously anticipated, which increases tensions between military commanders and the MHS.

Some providers will place soldiers on profiles when starting medications for psychiatric conditions, but they choose not to place soldiers on “S” psychiatric profiles unless symptoms are severe. Instead, they may place soldiers on profiles using the “P” designator and label the reason for profile as “medications” instead of the reason disqualifying medications are prescribed. Although deceptive profiling is a clever way to communicate to commanders about a soldier’s medical readiness and deployability status (better than no profile at all), it breaches another important intent of the profiling system.

Profiles are not only intended to communicate to commanders recommended medical restrictions, but profiles also serve to warn commanders about problems that are subject to deterioration. Relapse rates among those remitting from depression exceed 50 percent (Burcusa and Iacono 2007). Soldiers, after stabilizing from severe depression,

should be flagged through a psychiatric profile to alert commanders of potential relapse (AMEDD 2011).¹⁷ The intent is to protect soldiers. Profiles increase a commander's awareness of a soldier's susceptibility to future problems and can improve a his ability to provide oversight in the future. Psychiatric profiles for soldiers in remission may enable commanders to more readily identify relapse of symptoms and proactively assist soldiers in getting help, possibly preventing suicide.

The Army regulation governing profiles is misleading regarding psychiatric profiles. It specifically notes no limitations are required for "transient personality disorders" and that permanent designators are warranted after "recovery from acute psychotic reactions" (US Army 2011). However, personality disorders, by definition, are pervasive and not transient. Likewise, "psychosis" and "depression" are distinct entities. Omission of "depression" within examples provided in the regulation reinforces omission of permanent profiles to mark recovery of depression and warn commanders. However, failure to provide permanent profiles is in stark contrast to profile training programs and to my understanding, the intent of the system. Errors in military medical regulations may result in physicians' neglecting use of regulations and making independent decisions based on personal professional judgment. Physicians, actively involved with patient care within the structure of the current organization are unlikely to invest time in trying to decipher pathways to recommend changes in regulations when errors are discovered.

¹⁷Mandatory Army profile training includes an example of depression treated with medications and discusses the need for a permanent level "2" profile under the "S" designator when the soldier reaches remission.

Case 14: The RESPECT-mil Program

Discussion of psychiatric profiles illuminates many tensions for military physicians (and also other civilian medical providers caring for soldiers). Military initiatives to improve identification and treatment of common mental health problems and reduce stigma of psychiatric problems may amplify tensions and result in unintended consequences. The Army's RESPECT-mil program is one such example. The RESPECT-mil program strives to improve access to behavioral health care and decrease suicides among soldiers. The program involves actively screening all soldiers for depression and PTSD at every primary care visit. Soldiers raising concerns on initial screenings receive additional questionnaires, which are completed by patient self report, to aid in making diagnoses. Providers evaluate all positive responses to develop a treatment plan. Doctors are encouraged to treat patients in the primary care setting, or—if uncomfortable—refer soldiers to a behavioral health care specialist (Oxman 2008).

The secondary questionnaires that patients complete, while not diagnostic in themselves, do provide useful scores describing patient self-perception of overall functioning in relationship to depression or PTSD symptoms. Serial screenings reveal overall changes in patient functioning over time. However, providers often use these screening sheets to make diagnoses and guide treatment without proper medical interview or assessment because medical appointments are constrained by time.

Patients seek medical care to discuss their primary complaints (cold symptoms and musculoskeletal concerns), but the behavioral health screening identifies additional unrelated problems that warrant discussion. Providers ensure patients are not suicidal and treat patients for their presenting complaints, but providers may forgo detailed review of

patient questionnaires provided patients are safe. Incentivized by workload, providers add diagnostic codes based on diagnoses suggested by the screening forms, a practice that is often easier than coding for symptoms.¹⁸ Furthermore, screening sheets require physician signature and diagnostic labeling. Screening forms facilitate making diagnoses of depression and PTSD by including check boxes next to these diagnoses but leaving blanks for physicians to write in alternative diagnoses. In fact, as forms evolved over time, a check box annotating “possible PTSD” was removed, further enabling physicians to upgrade patient diagnoses to PTSD, even if not fully evaluated or warranted. If doctors forget to mark a diagnostic box, RESPECT-mil program technicians return forms until a code is provided. Checking prefabricated boxes is easier than writing in other diagnoses.

The RESPECT-mil program allows providers to refer patients to work with nurse case facilitators, who reside inside of primary care (not behavioral health) clinics. These nurses call patients and monitor patient symptoms to enable treatment intervention if symptoms worsen. Nurse case facilitators are required to discuss monitored patients with behavioral health providers.¹⁹ Separate computer systems allow communication between nurses and behavioral health specialists but not the primary care provider responsible for the soldier’s health. Ideally, nurse case facilitators discuss monitored patients with

¹⁸Theoretically, coding for symptoms and actual diagnoses should be the same. However, the screening suggests diagnoses, which are often included in diagnostic favorite lists for providers on the electronic health record. It takes additional effort to translate screening into symptoms and search for symptom-related codes in the electronic medical record. This process could become more difficult as medical coding transitions from the ninth manual of International Statistical Classification of Diseases and Related Health Problems to the tenth edition in the year 2014, which entails many more codes.

¹⁹The RESPECT-mil program maximizes potential workload and clinic productivity metrics by using behavioral health specialists (opposed to primary care providers) to supervise nurse case facilitators.

primary care providers; however, this discussion is not required unless patients report worsening symptoms or new treatments are recommended (by behavioral health providers). Consequently, discussing patients with primary care providers in addition to behavioral health providers requires nurse case facilitators to work harder. The RESPECT-mil program is advertised to provide care in primary care settings, but in reality, it appears more like a behavioral health program hidden in primary care clinics.

A centralized committee provides oversight to the execution of the RESPECT-mil program across all Army installations. This committee along with program “champions” at individual installations, monitor soldier functioning scores and trends and attempt to associate trends with individual providers.²⁰ When a provider is identified with a growing number of “disfunctioning” soldiers—soldiers that fail to improve by self-report through routine screening—the committee, through nurse case facilitators, sends the provider messages to increase psychiatric referrals or start soldiers on medications. Perhaps aggressive treatment recommendations come from the RESPECT-mil program’s desire to show the program improves psychiatric symptoms among soldiers. Conceivably, future program funding may be cut if the program cannot demonstrate effectiveness. Therefore, the RESPECT-mil program, with intentions to improve identification and treatment of behavioral health conditions in soldiers, may be incentivized to exaggerate the existence of mental health problems and offer potentially overly aggressive treatments.

²⁰Champions are selected to become program advocates and support program awareness. Many new military programs require clinics to designate champions, who serve as liaisons for centralized committees that oversee the program. Military physicians are good candidates for additional duties, like program champions, because military physicians are not paid overtime for carrying out additional duties. Tensions may arise when providers are asked to champion programs that they have reservations with.

Choosing to start medications for depression or PTSD requires thought and commitment; many medications have black-box warnings for potential increases in suicidal behavior, and CPGs recommend continuation of medications for six to twelve months following remission of symptoms. Providers may experience tensions in discussing psychiatric medications when soldiers come to the clinic complaining of non-psychiatric complaints like a sprained ankle or a sore throat. Providers may recommend follow-up visits to review psychiatric symptoms and medications. Other providers may initiate treatment immediately and write prescriptions without a trial of counseling or cognitive behavioral therapy. Providers may provide medications without thoroughly discussing medication side effects or recommendations for long-term use. Providers may offer medications to help improve soldier symptoms quickly, meanwhile overlooking the unintended consequences regarding deployment limitations the medications bring.

The RESPECT-mil program, designed to reduce negative stigma associated with behavioral health and enhance identification and treatment of psychiatric problems among soldiers in primary care settings, results in: (1) increased use of medications, which (2) decreases force deployability and (3) increases soldier profiles, which (4) reduces patient confidentiality, and (5) inadvertently increases stigma of behavioral health treatment.

Case 15: Psychiatric Problems and Job Limitations

The previous cases discussing eating disorders and profiles for psychiatric conditions introduce tensions military physicians experience regarding psychiatric care. Current Army regulations, dating back to at least 1989, support retaining soldiers on active duty with psychiatric comorbidities—provided symptoms do not result in

persistent or recurrent duty limitations or affect military performance (US Army 2011; US Army 1989). The Army wants to treat soldiers with psychiatric problems—soldiers receiving treatment for psychiatric problems offer greater benefit to the military than soldiers hiding from treatment.

In 2004, the Army Aeromedical Activity department began permitting waivers allowing aviators to fly following treatment of depression with certain antidepressant medications (McKeon 2009). Prior to the waiver, depressed aviators who avoided medical clinics and identification and treatment of depression retained flight certifications and their ability to fly whereas aviators seeking treatment for depression permanently sacrificed their careers as pilots. Forfeiting flying careers dis-incentivizes pilots to obtain beneficial treatments. Changing regulations and allowing pilots to obtain treatment without automatically being disqualified from all future flying opportunities increases the likelihood depressed pilots will seek treatment. Treatment ostensibly improves an aviator's mental health, thereby improving safety when that aviator flies. Put differently, it is presumably safer for pilots to fly after being treated for depression than it is for pilots to fly when they are depressed.

Prolonged war has heightened awareness of psychiatric problems among soldiers. Implications of a small all-volunteer force include frequent, repetitive tours to combat locations and shorter time periods at home. Amplification of basic medical standards allows soldiers being treated for psychiatric conditions more time to recover and stabilize before deployments. However, by restricting soldiers from duty, the amplification of medical standards creates conditions where soldiers are non-compliant with basic medical

standards.²¹ By failing to meet basic medical standards, soldiers may warrant referral for MEBs. The amplification of medical standards complicates the permissive care allowed by basic medical standards for the treatment of psychiatric problems. Consequently, providers may use ambiguous language and non-specific diagnostic codes when treating soldiers with mental health concerns. Providers may use medications typically associated with depression for alternative conditions such as painful menstrual cycles, impaired sleep, or chronic pain to prevent duty limitations that occur when the same medications are used for depression. Not all physicians are aware of the unintended consequences resulting from ambiguous language and generalized diagnostic codes.

Previous discussion highlights unintended consequences in terms of treatment delays and communication shortfalls when patients transfer their care between different providers. Another unintended consequence includes unhindered medical approval for certain security clearances or special jobs. Soldiers with some psychiatric problems are restricted from controlling certain weapon systems or accessing information systems that may prove detrimental to national security interests if compromised. Psychiatric care may result in remission of problems for many soldiers. However, psychiatric problems are associated with high reoccurrence rates. Some providers may hesitate to medically endorse soldiers with history of certain psychiatric diagnoses for security clearances, even when in remission. Ambiguous and elusive diagnostic coding may result in skipping

²¹The amplification of medical standards places deployment restrictions on soldiers above and beyond basic medical standards but typically does not result in soldiers failing to meet basic medical standards. However, the restrictions placed on behavioral health conditions in the amplified medical standards conflicts with the language used in basic medical standards. Thereby the amplified medical standards cause soldiers to fail basic medical standards.

checks and balances within security screening systems, which can result in unintended consequences. Not all security clearances require direct contact interviews or formal evaluations. The recent Navy Yard shooting by a civilian with a security clearance despite multiple public media reports describing overtly psychotic behaviors brings into question the availability and accuracy of medical records (Apuzzo and Goldman 2013).

Case 16: Moving Soldiers with Medical Problems

Soldiers change duty stations frequently. Soldiers receive orders for new assignments every two to three years, many requiring soldiers to move. These orders typically contain bullets reminding soldiers they are to arrive at the new duty station FMR and able to pass a physical fitness test. Orders imply that soldiers should not change duty locations or assignments while on temporary profiles limiting duty. The new unit is expecting a mission-ready, FMR soldier—not a soldier with continued medical problems preventing full participation in unit activities.

Some units wish to clean their ranks from soldiers with chronic or recurrent medical problems because these soldiers are unreliably present for duty. As long as soldiers with pervasive medical problems belong to a unit, they prevent more able bodied replacements from joining the unit. It is often faster and easier to help soldiers with medical problems obtain orders to move and let the new unit deal with the soldiers' medical ailments than it is to support a soldier through the MEB process. Units maintain responsibility of soldiers undergoing MEBs until the long process is complete.

Many soldiers with chronic medical problems who qualify for MEBs may enjoy a chance to move and meet new people. Soldiers with chronic medical problems may feel marginalized by their current unit; soldiers may look forward to building improved

relationships and completing medical care elsewhere. If MEB was previously discussed and undesired, moving to a new location allows the medical evaluation process to start anew, buying more time in service. Military physicians may support moving soldiers with medical problems to new units so they (the medical providers) can avoid initiating MEBs and the corresponding work involved.

Tensions can develop when physicians challenge commanders in moving soldiers to new locations or renew electronic profiles that may flag a soldier and prevent generation of new orders. Some soldiers may be lost to follow-up, deliberately allowing recommended restrictions to expire in order to facilitate moves. Soldiers or commanders may try to persuade physicians to write permanent profiles allowing alternate events (no running) on physical fitness tests to protect soldiers from further injury and allowing soldiers to move to new duty stations when soldiers have either temporary medical problems that are likely to improve or more severe problems that warrant MEBs.

Not all military physicians consider the implications of profiles and how they affect medical readiness. Current incentive structures permit moving soldiers with medical problems and do not hold physicians or commanders accountable for ensuring departing soldiers are medically fit for their next assignment. The electronic profiling system provides some checks and balances, but it is not currently used effectively. All soldiers pass through medical clinics when clearing duty installations, which provides an opportunity to catch soldiers on duty limiting profiles. However, soldiers typically clear medical clinics after they have orders and their military moves are in progress, which limits a clinic's ability to influence change and stop movement of duty-limited soldiers.

Case 17: Medical Clearance for Deployment

All soldiers undergo medical screening prior to deployment to include a medical interview with a provider. Each soldier completes an eight question survey, which asks the soldier's overall perception of his own health. The survey inquires if soldiers have any medical problems, dental problems, or questions pertaining to their health. Administrative housekeeping questions ask if soldiers have profiles, are pregnant, have medications and glasses (if needed), or if they have seen mental health in the last year. Providers review questionnaires to ensure soldiers are problem-free before electronically signing them to clear soldiers for deployment. Providers should acknowledge all medical problems or patient health concerns before clearing soldiers for deployment.

In addition to reviewing questionnaires, providers place medical referrals when health concerns arise, review vaccination questionnaires and clear soldiers to receive vaccinations, complete mail-order medication paperwork to facilitate delivery of medications in the deployed environment, review supplementary behavioral health questionnaires, review medical profiles, and complete separate entries in soldiers' electronic health records to document everything completed. Pre-deployment medical screening also includes additional medical stations, but the provider interview is a bottleneck in the process. At times, a second bottleneck arises when soldiers require interviews by behavioral health providers.

Typically, MEDCOM facilities support FORSCOM units and maintain jurisdiction over the pre-deployment medical screening process. At large military installations, relatively fixed facilities serve the needs of soldiers leaving for and coming home from deployment. At these facilities, MEDCOM providers, unfamiliar with the

patient population, clear soldiers for deployment based on soldier self-report. The health questionnaires physicians review and sign to clear soldiers for deployment use a different electronic system than both the systems used for the soldiers' medical records and medical profiles. Thus, reviewing medical records and profiles significantly increases the time providers spend with soldiers resulting in longer wait times, reducing provider efficiency, and decreasing soldier satisfaction.

Two key attributes of the medical community include risk aversion and patient autonomy. These attributes encourage physicians to believe patient self-reports and evaluate all concerns. Deploying soldiers qualify for expedited processing of medical referrals. Accordingly, pre-deployment screening interviews provide a prime opportunity for providers to give soldiers referrals for prompt expert consultation. Similar referrals may be delayed (or not medically indicated) when soldiers undergo the normal step-wise approach to medical evaluation and treatment. Medical problems persisting for over 10 months without interfering with a soldier's job performance suddenly have the potential to worsen with deployment. Soldiers may complain of medical problems to physicians for the first time at pre-deployment interviews stating the problems have been long-standing. Instead of reviewing medical records, providers may accept patients' verbal histories and place expedited medical referrals to specialists for further evaluation, meanwhile refusing to medically clear soldiers for deployment. Tensions arise when military commanders watch their units' FMR status fall after pre-deployment medical screening. Pre-deployment medical screening is supposed to increase, not decrease, a unit's medical readiness.

To prevent the sudden and drastic reduction in FMR soldiers at pre-deployment medical screenings, units may request “readiness” screenings, which are pre-screenings before the official pre-deployment screenings designed to identify medical problems earlier. Earlier identification of potentially deployment limiting medical problems prompts earlier initiation of evaluation and treatment of soldiers. Consequently, when units reach the window for official pre-deployment medical screenings, soldiers have completed supplementary medical evaluations and are FMR.

A unit’s ability to conduct “readiness” screenings depends on the medical support available. Large military installations with medical facilities designated to support soldier medical readiness as described above can often support “readiness” screenings. In fact, larger facilities are incentivized to participate in “readiness” screenings because they create workload, which is essential to justify their continued existence. Smaller facilities, on the other hand, cannot support “practice” events to prepare for official pre-deployment screenings. Smaller facilities may reduce medical services for family members to support deploying soldiers. Assisting in “readiness” screening reduces availability of healthcare to other beneficiaries and small facilities prefer to conduct soldier pre-deployment screenings quickly as possible to minimize disruption of normal health care operations.

Instead of using MEDCOM assets to conduct “readiness” medical screenings, military units can employ their own FORSCOM providers to complete the task. However, FORSCOM providers may view soldier medical complaints differently than the MEDCOM providers that ultimately provide medical clearances for soldiers to deploy at official pre-deployment screenings. Therefore, FORSCOM “readiness” screenings may

fail to improve FMR statistics unless the same FORSCOM providers work along side the MEDCOM providers conducting the actual pre-deployment medical screenings later on.

Many MEDCOM providers have reputations of being overly protective, limiting soldiers from deployment, whereas many FORSCOM providers have opposite reputes—FORSCOM providers may dismiss legitimate patient complaints. Since FORSCOM doctors work for military commanders, who are tasked to deploy the largest percentage of the unit possible, FORSCOM providers may make risky decisions and endorse deploying soldiers with active medical problems. Soldiers may complain that their medical ailments are ignored and not properly treated, yet MEDCOM clinics increasingly demand soldiers receive medical care from their FORSCOM primary care providers.²² The pre-deployment screening process provides checks and balances and allows unbiased MEDCOM providers to make assessments regarding deployment, which may overturn recommendations made by FORSCOM providers.

Some FORSCOM providers establish healthy doctor-patient relationships with soldiers. These providers are intimately familiar with their soldiers' medical problems. They may have trained with soldiers in the field, participated in unit social gatherings with soldiers, and may have deep appreciation of soldiers ranging from medical and family problems to job performance and reputation within the unit. The FORSCOM physician may better understand unit dynamics and mission needs as he maintains a close relationship with the unit commander. The long term context of patient-physician

²²The MHS is adopting the patient-centered medical home philosophy, which incentivizes clinics to ensure patients have continuity of care with their primary care providers. Clinics send soldiers back to FORSCOM providers, who are assigned as soldier primary care providers. Tensions may arise because soldiers do not have choices as to who their primary care providers are (many units only have one medical provider).

interactions and medical assessments over time may allow FORSCOM physicians to quickly make complicated decisions regarding providing medical clearance for soldiers to deploy. When a military physician chooses to take a soldier with a potential medical problem down range, he is aware of the soldier's presence and is better able to monitor the soldier and ensure the soldier's medical needs are met.

Some soldiers have significant medical problems and want to deploy. Soldiers may minimize problems on screening questionnaires. They may stop taking required medications so they do not need to request 90 day supplies. They may let profiles expire to facilitate deployment. Deployment incentivizes soldiers with tax-free pay, combat zone bonuses, and decreased expenses back home. As long as soldiers perform well, stay out of trouble, and have a strong desire to deploy, most commanders are supportive of taking soldiers on deployments, even if they have medical problems. Military physicians, FORSCOM and MEDCOM, may struggle to identify these soldiers, but for different reasons. Speed, efficiency, and convenience facilitate MEDCOM provider approval, clearing these soldiers to deploy. A soldier's reputation of good character and performance, combined with his commander's support, may provide a false sense of reassurance regarding a FORSCOM provider's ability to provide appropriate medical care down range and result in a medical clearance to deploy.

New tensions develop if a soldier with medical problems deploys and requires evacuation for problems down range. The MHS conducts peer reviews to evaluate actions of specific providers when soldiers unexpectedly require medical evacuation for problems pre-deployment screening should catch. Investigations often provide recommendations, which may entail additions of new questionnaires or screening

procedures to help prevent providers from making the same mistake in the future. New publications with amplified medical standards are published (though not always well distributed or understood), and new training modules are launched to educate providers that conduct pre-deployment medical screenings. Training modules are imperfect, and training completion does not ensure comprehension. New, amplified medical standards for deployment may reduce improper deployment of medically unqualified personnel. However, unless the amplified standards are understood by all providers within the MHS, including those not involved with deployment medical screenings, commanders may still face the problem of sudden drops in FMR rates after pre-deployment medical screenings.

Case 18: Pregnancy While Deployed

Pregnancy among deployed female soldiers occurs relatively frequently, despite general orders discouraging sexual activity down range. Regulations ban pregnant soldiers from serving in the deployed environment. Some females suspect pregnancy but fear seeking medical treatment—they fear potential punishment when their commanders are notified of the pregnancy. Legal statutes afford some protection of pregnant females—punishing pregnant females and not those donating the sperm required to create the pregnancy is discriminatory. Nonetheless, some commanders may interrogate females in search of the donating party with desire for disciplinary action.

Regardless of concerns for disciplinary action, females may fear discrimination and negative performance evaluations because of a pregnancy. These women understand that premature return home from theater disrupts unit operations. Some individuals perceive women who become pregnant while deployed as lacking discipline. Pregnancy during deployment may bring negative stigma to soldiers—some are accused of

purposefully trying to become pregnant to get an early ticket home while others are labeled as being sexually promiscuous “tramps.” Many people neglect consideration that pregnancy may result from rape.

Sexual assault increases the complexity of caring for pregnant soldiers. Women may feel uncomfortable discussing sexual assault and request privacy, not wanting their commanders to know. Physicians, privy to confidential information, must exercise caution in discussing pregnancy with commanders to prevent leakage of information the commander does not need to know. On the flip side, some people may view sexual assault as a legitimate explanation for pregnancy in the deployed setting, absolving females from any responsibility in becoming pregnant. Females can hide behind sexual assault to avoid blame for becoming pregnant. Some may charge females who report sexual assault only after discovering pregnancy of making false accusations regarding the assault. Others may argue the pregnancy and associated stigma may liberate females to uncover repressed trauma and report the assault.

The balance between patient privacy and medical treatment needs can create tensions between the military commander’s need to know and potential consequences resulting from pregnancy incurred downrange. Similar to the discussion of psychiatric disorders, medical providers prefer pregnant females seek medical care over hiding a pregnancy without prenatal care. Once discovered, regulations require urgent evacuation from theater, and the medical diagnosis falls within a commander’s need to know. Depending on the time remaining during deployment or before mid-tour leave when a pregnancy occurs, soldiers may request privacy and ability to redeploy or take leave to give the appearance that the pregnancy occurred during more acceptable time periods. A

female discovering pregnancy at five to six weeks gestation who will redeploy by 10-12 weeks gestation will return to appropriate health care facilities by the time prenatal care normally begins and before many other women even discover they are pregnant.

Military physicians may experience different tensions depending on their level of training or expertise in caring for pregnant women. A medical provider trained in obstetric care may feel comfortable educating a soldier and supporting her in theater during the first trimester (before normal prenatal care begins), if the soldier understands potential exposure risks to the baby. Nonetheless, documenting a patient's awareness and acceptance of risks within the medical record creates tensions—potential bad outcomes at delivery may trace back to a negligent provider allowing a soldier to remain deployed while pregnant. Military doctors can make clinical judgments in conjunction with specific patient desires to balance patient (and baby) care and privacy with potential harms. Doctors may temporarily support pregnant women in deployed settings, but they may ultimately be held responsible for an eventual undesired outcome, even if the outcome occurred by chance. Military doctors assume risks secondary to their position as a professional health care providers and by their rank as officers in the military.

Additional tensions arise pertaining to unique conditions of deployment and their potential effects on pregnancy. Soldiers are often required to take medications to prevent malaria while deployed. Many medications to prevent malaria are contraindicated during pregnancy. Physicians may experience tensions making treatment decisions regarding stopping or changing medications. Physicians strive to balance risk of medications versus the risk of acquiring malaria. Physicians uncomfortable managing pregnancy may defer patient questions regarding exposures to physicians managing pregnancy back at home.

Tensions also exist in consulting other providers for advice because seeking advice may draw negative attention to a particular unit by expanding knowledge of the pregnancy. Seeking counsel from more experienced providers may require contacting physicians in different regional areas and may disrupt standard flow of information, resulting in unintended consequences. The consulted doctors consulted may share need-to-know information with their higher-level commanders instead of letting the patient's commander learn first. A doctor and patient approaching a local commander to inform him of pregnancy may experience tensions if the local commander first learned of the pregnancy from his higher-level commander, who was informed by a different physician.

Case 19: Pancreatitis and Alcohol

Alcohol is a widely accepted beverage for military social gatherings, at least when units are not deployed. Alcohol becomes a problem when it interferes with duty or the law. Soldiers that miss duty secondary to hangovers, arrive to work under the influence, or require medical evaluation and treatment related to alcohol may have problems. Likewise, domestic disturbances and traffic incidents related to alcohol increase concerns for alcohol-related problems. Many physicians recognize concerning patterns of behavior regarding alcohol consumption in well-functioning individuals without legal, medical, or work-related problems associated with alcohol. Physicians may encourage soldiers to reflect on alcohol use and decrease alcohol consumption. The Army Substance Abuse Program (ASAP) is a military program that can help soldiers who abuse alcohol. Patients may voluntarily refer themselves to ASAP programs, but they still require approval from their commanders to participate. Alternatively, commanders or physicians may refer patients to ASAP programs, in which case participation is mandatory, not voluntary.

Pancreatitis is inflammation of the pancreas. Acute pancreatitis is debilitating and often requires hospitalization. The two most common factors contributing to pancreatitis are gallstones and alcohol. Standard medical care for pancreatitis includes laboratory assessment to evaluate for potential contributing factors. When alcohol is implicated in pancreatitis, physicians take extra precautions to monitor for alcohol withdrawal during hospitalization, a potentially fatal problem. Commanders need to know when their soldiers are hospitalized and are entitled to a brief description of the problem (diagnosis), the soldier's condition, and prognostic information. However, patients maintain privacy regarding underlying details of the problem. Thus, a physician may discuss with a commander the soldier's hospitalization related to pancreatitis, but the physician should not share the details underlying the disease, especially if the soldier desires privacy.

Army Regulation 600-85, *The Army Substance Abuse Program*, specifies rules for physicians to refer soldiers with medical problems likely related to alcohol to ASAP. If a soldier presents with pancreatitis likely related to alcohol use, regulations specify physicians should refer soldiers to ASAP and then inform the soldier's commander of the medical referral (US Army 2012a). Soldiers require command approval to attend treatment—informing commanders of medical ASAP referrals ensures soldiers are released to participate in treatment programs. Physician referrals to ASAP work similarly to command referrals. Soldiers receive a single trial of treatment, and if the soldier experiences a second alcohol related incident after beginning rehabilitation, administrative discharge from the military should occur.

Physicians understand the relapsing and remitting nature of substance abuse. Laboratory testing and clinical presentations may suggest alcohol abuse, though doctors

cannot prove it. A patient who presents with pancreatitis may have a blood alcohol level of zero but may admit to previous drinking. Laboratory tests may show changes in liver enzymes suggestive of alcohol problems. Patient history and lab work may contribute to an assessment of alcohol related pancreatitis, which should mandate a referral to ASAP. However, alternative explanations also exist. The soldier may have fatty changes in the liver unrelated to alcohol. Doxycycline, commonly prescribed to deploying soldiers to prevent malaria, may cause abnormal liver function tests. In addition, research suggests a probable relationship of Doxycycline with acute pancreatitis (Eland et al. 1999).

Some physicians may struggle to place referrals mandating soldiers to attend ASAP. Physicians may strongly recommend evaluation and encourage patients to “self-refer” to ASAP after providing education and having patients reflect on their own alcohol use. Physicians may hold different thresholds of concern depending on a soldier’s job (pilot versus administrative person), which I will discuss later (also see case 25). Many physicians are unfamiliar with AR 600-85 and may be unaware of regulations mandating medical referrals to ASAP for alcohol related medical problems. The medical regulation, AR 40-501, does not specifically discuss referrals to ASAP. Unfamiliarity with regulations may decrease awareness of potential conflict and reduce some tensions for providers. However, when concerns arise for deployed soldiers, tensions may increase.

Consider the case of a deploying soldier who develops acute pancreatitis within 48 hours of leaving the United States. The soldier is taking Doxycycline and admits he drank heavily prior to leaving for deployment. Lab work shows abnormal liver enzymes consistent with long-term alcohol use. Hospital medical providers suspect alcohol related pancreatitis, are concerned for potential alcohol withdrawal syndrome, and order rapid

evacuation from theater. Accordingly, the providers inform the soldier's commander of the impending evacuation. The commander, who knows the soldier well, does not believe the soldier has an alcohol problem. The soldier is a highly performing individual without any blemishes on his record. Furthermore, the soldier is a pilot and labeling the soldier with an alcohol problem would effectively end his career. The commander believes this pilot, after recovering from the current illness, should be able to fly unrestricted and assist in the military mission noting alcohol is forbidden when deployed. The commander deems this aviator a mission-essential person, and he tasks his unit doctor to work with hospital physicians to solve the problem. As the military doctor assigned to this soldier's unit, I experienced tensions first hand. Soldiers admitted to a hospital while deployed fall under the jurisdiction of the hospital commander, not their unit commander, and FORSCOM physicians have minimal influence on decisions of hospital commanders.

As a physician, I value patient honesty, especially among pilots who tend to withhold information in fear of being "grounded." I understood the medical thought processes contributing to decision making regarding the soldier with pancreatitis and believed the soldier was receiving appropriate treatment for his clinical presentation. At the time, the soldier demonstrated no signs of alcohol withdrawal, but withdrawal was still a realistic possibility warranting a higher level of care. In addition to advocating for appropriate medical treatment, I had to balance the tensions created by the perception that flight surgeons exist to ground aviators when their true purpose is to keep aviators flying. Rumors among other aviators regarding my actions could impair future patient relationships and aviator honesty regarding medical problems requiring treatment.

This event was my first test in the deployed environment, and how I handled the situation could leave a lasting impression with my commander (and evaluator) regarding my medical competency as well as my understanding of the military mission. My actions would also influence my ability to provide care to other aviators in the future. Tensions were not anticipated, but very real. Ultimately, we reached an acceptable solution including appropriate medical evaluation and treatment and retained a quality aviator, who ultimately returned downrange to complete the majority of the deployment.

Pancreatitis is a classic medical problem, easily connected to alcohol. But, military medicine does not always wait for manifestation of medical disease to discuss referrals for alcohol related disorders. Military medicine involves extensive screening for alcohol abuse on all annual check-ups, pre-deployment, and post-deployment medical evaluations. An abbreviated screening questionnaire flags soldiers for potential problems based on frequency and amount of alcohol consumed. A female that has one glass of wine with dinner two-to-three times a week is flagged for a potential problem.²³ The screening is designed to be extremely sensitive and to not miss a single person with a potential problem, if answered honestly. Consequently, the screening may over identify at risk populations. Thus, medical providers may subjectively choose which soldiers require further education, screening, or potential referrals to ASAP.

Military service members drink alcohol. Differentiating between problematic use and acceptable use is difficult. Military physicians receive privileged and confidential information to help promote health and treat disease. Regulations that encourage or

²³The Army uses the AUDIT Alcohol Consumption Questions (AUDIT-C) for routine screening. The questions are available in interactive calculator format online at <http://hepatitisc.uw.edu/page/clinical-calculators/audit-c> (accessed October 22, 2013).

mandate treatment referrals with a potential to negatively affect a soldier's career falls back on the conflicting nature of being a health care provider versus an investigator.

Case 20: Seizures While Deployed

A history of seizures disqualifies individuals for military service. Once accepted into the military, a soldier can experience a seizure and stay on active duty with minimal sequelae. General consensus guidelines and expert opinion recommend imaging of the brain after a seizure and evaluation of brain waves (Electroencephalography-EEG), but these recommendations are not based on consistent, good quality, patient-oriented evidence (Adams and Knowles 2007). After seizures, patients are placed on driving restrictions for a period of observation with duration of restrictions varying by state. Beginning anti-convulsant therapy to prevent additional seizures is controversial after a single seizure; risks of medications may outweigh benefits. Many patients never experience a second seizure, especially if their physical examination and imaging are normal or the initial seizure was provoked (such as from a medication or fall).

Consider the case of an Army officer who experiences a first seizure in the deployed setting. There is no trauma or potential for concussion, but the officer took tramadol (a commonly used pain medication), which is known to lower the seizure threshold (one may consider the seizure provoked by medication). Immediate imaging of the brain by computed tomography (CT) scan is normal. General consensus guidelines recommend additional testing (EEG and MRI). The natural tendency for physicians is to seek additional information and instinctively endorse evacuation from theater to facilitate further evaluation. Seizures are frightening and individuals with one seizure are at risk of another. Sending a soldier home after a seizure decreases the burden on deployed

providers to observe or respond to a potential reoccurrence, and evacuation allows soldiers to complete generally recommended seizure work-ups.

Potential unintended consequences of medical actions are often overlooked. A soldier loses driving privileges after experiencing a seizure. The skeletal crews remaining in garrison while the majority of the unit is deployed are responsible for transporting the returning soldier, both for official and unofficial business. The strain of providing transportation is even greater when the soldier lives off of the military installation. Meanwhile, the soldier takes up a place on the unit's roster, and his belonging to the unit may prevent another individual to replace him on deployment. The soldier will receive additional medical testing, which may or may not find abnormalities, such as a epilepsy. Although the testing may provide reassurance, it may not change how the soldier is medically treated. Regularly, medications to prevent additional seizures are withheld unless a second seizure occurs.

A single seizure does not render a person unfunctional. Most people remain highly functional without any impairment in cognition. If initial brain imaging is normal (CT-scan) and a physician classifies the seizure as provoked in an otherwise low-risk individual, why not retain the soldier in the deployed setting, especially if the soldier can work in a location near medical resources should another seizure occur? The soldier will not need to drive during deployment because meals, laundry, work and living provisions are all within walking distance. The soldier can contribute to the overall unit mission, and commanders retain a functioning member of the unit who is unlikely to be replaced if the soldier is evacuated. Furthermore, the rear-detachment is relieved of transportation

duties. Although experts recommend MRI and EEG, there is not a clear timeframe when these tests are needed, and the evidence supporting these recommendations is weak.

Physicians may experience tensions by considering actions contradictory to mainstream tendencies or by supporting decisions that other physicians deem unsafe. Physicians strive to explain the unknown, and the mere availability of technology and tests increases the desire to conduct additional investigations. Do patient preferences matter? What about the military commander's needs? If the patient wishes to remain with his unit along with friends and comrades—and the military commander approves—can military physicians support both their patients and their bosses by not evacuating the soldier while adhering to evidence based medical practices approved by medical accrediting organizations? Relationships between fellow physicians and rules-in-use governing medical practice contribute to tensions along with evidence-based medical practices, the needs of the patient, and the needs of the unit.

Case 21: Surgery While Deployed

Deployment does not provide immunity to appendicitis or other ailments that require surgery; occasionally, deployed soldiers require surgery for non-traumatic reasons. Deployment complicates surgical decisions as physicians may lack diagnostic imaging. Surgeons may operate more aggressively in absence of imaging, which can rule out some surgical diagnoses. Likewise, deployed surgeons may conduct open surgical techniques opposed to laparoscopic techniques, which they employ in garrison. Open techniques leave larger wounds and prolong recovery periods. Physicians may experience tensions in making decisions to operate as well as how to facilitate the soldier's recovery following surgery and protect the soldier from further harm.

My first surgical scenario while deployed involved a female soldier of reproductive age who presented with severe abdominal pain and a history of ectopic pregnancy with removal of one tube. Her description of symptoms and physical exam put potential ovarian torsion high on the differential diagnosis. The appropriate diagnostic imaging was not available at the patient's location. Weather conditions made medical evacuation (MEDEVAC) high risk. Ovarian torsion was a time sensitive diagnosis requiring urgent evaluation to rule out. The alternative to imaging was surgery. In this patient, failure to diagnose or stop an ovarian torsion could result in her permanent infertility. The surgeons involved commented that they could be sued if they failed to make the diagnosis of ovarian torsion in the civilian sector, and they chose to operate.²⁴

Following the surgery, the patient remained deployed during her recovery and convalescence. The patient, having multiple previous surgeries, was tolerant to opioid medications and had a difficult recovery, largely related to pain. With concerns for pain, duty limitations, and prolonged use of narcotic medications, the surgeons could have easily recommended evacuation to the United States for recovery. A soldier struggling with pain management and taking high doses of narcotics can drain limited medical resources and becomes a risk to commanders focused on combat missions.

The soldier's husband worked in the same task force and was a very productive service member with an excellent reputation in the unit. The soldier's pain appeared to improve significantly when she received support from her husband. Evacuation of the soldier could create tensions by eliminating part of the support network important to her recovery. If the soldier returned home and experienced subsequent problems, the

²⁴The primary surgeon involved served in the National Guard.

problems could potentially impair her husband's ability to concentrate and contribute to the unit's mission. Subsequent problems could result in emergency leave for her husband and sudden loss of his availability to the unit. Despite the patient's difficulty with pain management, the soldier, her husband, surgeons, commander, and primary care physician all discussed recovery options and collaborated to complete recovery in the deployed setting. The soldier's participation in discussing options improved her sense of control, reduced anxiety, and helped her actively participate in comprehensive pain management and stop all narcotic pain medications. In this case, all stakeholders openly discussed tensions and worked together to develop solutions.

Another consideration influencing convalescence after deployed soldiers undergo surgery for non-traumatic reasons includes the time remaining on deployment. A soldier that has surgery for appendicitis early in deployment has significant time for recovery. On the other hand, a soldier diagnosed with appendicitis less than a week before coming home has less time for recovery. The redeployment process requires extensive lifting and use of protective gear, which is typically restricted following surgery. Accordingly, it seems logical to evacuate soldiers after surgery at the end of their deployments—evacuation protects soldiers from further injury, and units no longer require the soldiers for the mission. However, a soldier may request to return home with his comrades and partake in the redeployment festivities. If the unit can support and protect the soldier (fellow soldiers can carry belongings) and a medical provider is available to monitor and treat the soldier if needed, is it wrong to allow the soldier to redeploy with his unit?

Case 22: Doctor-Patient Relationships While Deployed

Chapter 2 discussed mixed agency in military medicine with one argument suggesting dual loyalty challenges for military physicians should not exist because deployed physicians lack doctor-patient relationships with soldiers. Military physicians assigned to military units (FORSCOM physicians), by nature of service to the military, serve the military and are unable to establish patient-physician relationships (Lunsroth 2008). Logically, this claim applies to both deployed and garrison environments.

What defines a physician-patient relationship? Many consider a physician-patient relationship to include continued follow-up of a patient over time with the same provider. Surgeons, consultants, or clinics that lack continuity with regards to the same providers caring for patients over time may not qualify as having established physician-patient relationships. If a trauma surgeon on call in New York completes surgery on an individual after significant trauma (the collapse of the World Trade Center), he likely lacked a relationship with the patient prior to the trauma. However, a family physician employed in the area may arrive to the scene to render assistance and be recognized by established patients. Would a physician be neglecting or abandoning his established patients to ignore them while tending to others more seriously injured? If abundant resources exist, perhaps the physician can reassure his patients, attend to others, and then return to his patients and provide additional care.

Insert the above example into a deployed environment, where resources are limited. The probability that surgeons have established relationships with soldiers is small. Typically, surgical facilities only have a few surgeons, an insufficient number to independently handle large-scale trauma. When large-scale trauma occurs, all medical

providers pitch in to render care. Many of these other medical providers belong to military units and have established patient care relationships with soldiers starting prior to and continuing during deployment. Regardless of scholarly debate as to if a physician-patient relationship can truly exist because military service negates the ability to develop an unbiased relationship, chances are the doctor sees an injured soldier as his patient just as the injured soldier sees the physician as his “doc.” One may think that a military physician, by treating other patients first, is abandoning his established patient. When resources are limited, the soldier could experience bad outcomes and potentially die.

Even if resources are not limited, the combat environment creates additional tensions. Providers treating the most severely injured with higher priority than their own soldiers may increase tensions between soldiers and physicians, which can result in unintended consequences. Soldiers may feel that physicians find allies, local national civilians, or enemy combatants more important than themselves, which can lower morale. Poor morale can influence soldier resiliency. Low resiliency can increase development of psychiatric medical problems such as depression, anxiety, and PTSD.

Physician-patient relationships do exist between military physicians and soldiers, both in the garrison environment and deployed. Tensions may arise when laws of war conflict with accepted rules-in-use within the profession of medicine—not to abandon patients. While I use a mass-casualty scenario to shed light on tensions created by physician-patient relationships, the next section explores additional tensions related to mass-casualty scenarios.

Case 23: Triage and Mass-Casualty Scenarios

Mass-casualty scenarios occur when multiple individuals sustain injuries simultaneously and require medical evaluation and treatment, but the demand for medical services exceeds the supply of medical care available. Hence, triage serves to sort individuals based on injuries to prioritize the order in which patients receive evacuation and treatment. The goal of triage is to ensure that those in most urgent need of medical care get seen first allowing those with less urgent need to wait. One individual is appointed to conduct triage, and the remaining medical providers evaluate patients in the order directed by the person conducting triage.

Deciding who should be in charge of triage can create controversy. Ideally, the most experienced provider conducts triage, which in many situations is a surgeon. But, surgeons are among the most limited resources during trauma along with operating tables and surgical supplies. Conceptually, having surgeons conduct triage is not always the best use of resources because surgeons could apply their unique skills to perform surgery and reduce the bottleneck in care. Accordingly, non-physicians may perform triage duties. Historically, triage duties were assigned to nurses, medics, and dentists, though their accuracy suffered in comparison to physicians (Janouseck et al. 1999).²⁵ Current research strongly recommends senior physicians or emergency-room trained nurses perform triage duties (Janouseck et al. 1999). Realistically, medics that retrieve patients from points of

²⁵My medical training discussed using dentists as triage personnel because dentists typically had extensive medically-related training and education but less useful skills in the actual treatment of soldiers with wounds, thus allowing medics, nurses, and doctors to provide care. In practice, I have not seen dentists utilized as triage providers.

injury and bring them to medical facilities influence triage. The order patients are taken off of MEDEVAC platforms influences the order in which they are seen.

Patients from mass-casualty scenarios typically arrive at medical facilities gradually instead of all at once. They may arrive piecemeal from different locations on the battlefield. Physicians may monitor MEDEVAC radio frequencies to anticipate incoming patients and their needs. There may be two patients at a medical facility that require surgery, but the surgeon believes he can wait a couple hours before beginning surgery without detriment to patient outcomes. Radio alerts of an inbound MEDEVAC helicopter (30 minutes away) bringing in two more patients classified with “urgent-surgical” problems may influence treatment and create tensions. If the surgeons take the current patients into the two-bed operating room immediately, it is unlikely the surgeries will be complete when the new patients arrive. The accuracy of the MEDEVAC request is unknown, but usually those labeled as “urgent-surgical” require surgery. If the incoming patients require surgery more urgently than the current patients, beginning surgery on the current patients could delay lifesaving interventions for the new arrivals.

Tensions may develop regarding treating current patients or waiting for the inbound helicopter. Some may argue to treat the existing patients first because there is no guarantee the helicopter will arrive, much less with living patients. Delaying care for current patients increases the risk of potential harm. Additional tensions may arise depending on the nationality of the patients involved. The Geneva Convention dictates nationality should not influence how one renders medical care. Nonetheless, international laws do not negate tensions physicians experience in making medical treatment decisions.

Military physicians wish to save lives and treat patients—all patients. There may be underlying, natural, or psychological biases for Americans to give preference to American patients, French to French, German to German, etc.; however, other subtleties may also contribute to tensions. Institutional policies and procedures may influence categorization of patients to receive care, which can create tensions.

Suppose authorities never challenge release of MEDEVAC assets for American patients. Military commanders accept large amounts of risk to launch helicopters in order to save American lives. Weather and overall security (or lack thereof) on the ground may pose significant threats to MEDEVAC assets. Military commanders (combatants) have authority to make decisions to launch evacuation helicopters, not medical personnel (noncombatants). If military commanders are willing to accept more risk to retrieve American patients (their own soldiers), there is no incentive for medics to exaggerate the American patient's condition when calling in an evacuation request.

On the other hand, medics may wish to exaggerate the medical conditions of non-Americans, local nationals, or potential enemy soldiers to facilitate their evacuation. The medic may feel overwhelmed with the number of patients and need assistance. The medic may learn through feedback that exaggerating the number of patients or urgency of injuries improves response rates from others to assist with evacuation. A commander may feel more compelled to launch MEDEVAC assets in risky situations when multiple patients require urgent assistance. I have watched live footage of overstated “urgent-surgical” MEDEVAC requests for local national patients: I observed patients laying in the back of a truck independently sit up, jump out of a truck, then lay down on a litter to

be carried to a helicopter. The hospital expected seven litter patients with severe injuries only to receive walking wounded with relatively minor wounds.

If we rewind to the previous discussion of surgeons considering delaying surgery for two patients pending the receipt of two more patients, their decision may depend on the nationality of patients listed in the MEDEVAC request. If the two expected patients are classified as American, the surgeons may expect severe injuries because the medic has less incentive to exaggerate injuries. If the evacuated patients were local national, the surgeons may choose to begin surgery on the current patients, as the condition of the others is more likely to be overstated. As long as the patients awaiting surgery are stable and appropriate medical care is provided, does the variance in physician actions matter? The actions may appear in violation of the Geneva Convention, but the international law may overlook a physician's intent. Likewise, individual physician actions do not always provide appropriate feedback to those at the policymaking level. Institutional systems, with unintended consequences, may proceed unhindered and contribute to tensions.

Case 24: Whole Blood Drives While Deployed

Blood is an important resource during combat; people cannot live without blood to provide oxygen to the body. Combat brings injuries, resulting in blood loss, causing death by exsanguination. Physicians can save lives after trauma by replacing lost blood. During mass-casualty scenarios, blood becomes another limited resource. At times, facilities run out of blood.

The military can usually replenish blood within hours, but some patients require more urgent replacement of blood in order to survive. In dire circumstances, medical facilities may call for whole blood drives to help a patient. Medical facilities ask

universal donors and those sharing the recipient's blood type to provide blood for direct transfer to the patient in need. Whole blood drives are uncommon but elicit a large response. Many soldiers imagine a battle buddy needing blood, and even soldiers intensely afraid of needles come forward to donate.

Unfortunately, blood donation may impair performance. People may experience dehydration, lightheadedness, headaches, and fatigue after donating blood. During combat, these symptoms may have detrimental effects. In fact, aviation regulations require at least 72 hours of grounding after aircrew donate blood to allow their bodies to equilibrate (Woodson 2005). The grounding period minimizes potential risk of aircrew operating aircraft in an impaired state following blood donation. Massive blood drives can potentially impair a significant percentage of a unit in a short period of time.

When should medical facilities ask for whole blood? Does it matter if the patient is a civilian, soldier, or enemy combatant? Medical facilities, treating all patients the same, might not discriminate between patients for which they request whole blood. During my deployment, I observed the hospital commander orchestrate a whole blood drive for a non-American patient. If my memory serves me correctly, the patient was a detainee and potential enemy. As a flight surgeon, I policed the lines to prevent my flight crews from participating because donating blood would mandate a temporary grounding, which would impair the unit's ability to accomplish assigned missions. In considering how blood donations can weaken soldiers, I asked the hospital commander (this was not my commander but in a separate chain of command) if the patients should have the right to know who they were donating blood too. The hospital commander did not believe it mattered—the hospital's job was to provide equal treatment to all patients.

My opinions differed and came from limitations posed on my soldiers for donating blood. Had the recipient been another unit member, the benefit of donating blood may have outweighed the risk of performance degradation. There was something important about relationships and bonds soldiers have with each other. From my relationship with soldiers, I sensed the rules-in-use were that whole blood drives requested of Americans only happened when American lives were at stake. The same soldiers (combatants) that thrived on stories to kill the enemy asked with sincerity if the patient would be okay, as if he was a brother. Patient autonomy was important, and the soldiers donating blood were still patients. It seemed like the hospital commander was using deception to collect blood. I did not experience tensions in using available blood on civilians or detainees, but rather from the method in how resource was requested and collected. Would military commanders accept the risk of decrements in their soldiers' performance because they selflessly donated blood to save an enemy's life?

I do not know other specifics of the case. I saw the hospital commander as an altruistic officer, always trying to do well and treat all humans with dignity and respect. I perceived no ill intentions on the commander's decision. However, this research opened up windows in to potential of investigative services placing pressure on a commander to keep a high profile patient alive to assist with further questioning. Although a possibility, it was not on the forefront of my mind, or to my knowledge, the other physicians' minds at the time of the scenario. The physicians involved thrived off of saving lives and being part of miraculous interventions, regardless of patient identity.

Case 25: Medical Standards by Job: Aviator versus Mechanic?

Army Regulation 40-501 defines medical standards for all soldiers entering and remaining in the Army. Additional, more restrictive standards apply to soldiers wishing to become aviators or serve on flight crews. These standards differ between actual pilots, aircrew members, and air traffic controllers. Unmanned aerial vehicle (UAV) operators are also subject to flight medical standards.

Many rationales exist to explain increased medical standards for aviators and flight crew. Aviators and flight crew are subject to unusual stressors on the body and must adapt with lower oxygen levels when flying at high altitudes. However, air traffic controllers and UAV operators work on the ground and high altitudes should not matter for them. Aviation assets are expensive, and the cost of losing an aircraft in terms of money and lives is enormous; enhanced medical standards may improve outcomes and limit unnecessary equipment losses. Is this to say that flight crews are more important and have more control over equipment losses than others? Is the pilot more responsible for an aircraft accident than the mechanic that failed to tighten a screw on the tail rotor because he was impaired? What is the difference between a person controlling remote control airplanes compared to a person with the ability to release a nuclear device?

Army aviation provides more guidance on medical care than AR 40-501. The department of Army Aeromedical Activity (AAMA) produces aeromedical policy letters (APLs) that provide detailed instructions on various medical diagnoses. These policy letters describe necessary medical evaluation and follow-up required for aviators to remain on flight status when medical problems are discovered. In a way, these policy letters become a medical cookbook providing evaluation and treatment algorithms based

on generally accepted medical standards of care. Physicians looking to policy letters for directions on providing patient care may reduce independent thought. Reliance on policy letters and other medical regulations (AR 40-501) contributes to the viewpoint that if regulations fail to directly specify anything against a particular disease or medical condition, the medical condition must be okay.

Tensions may arise when a provider's professional judgment disagrees with regulations in place. Providers may deem regulations unfair and make independent decisions outside of regulation standards. For example, regulations do not restrict aviator mechanics from taking medications that impair performance, but pilots are restricted from taking the same medications.²⁶ If a provider prescribes an aviator mechanic a medication that may cause drowsiness and writes a profile recommending restrictions in working on aircraft, tensions may elevate because regulations do not require restrictions and the mechanic is not on flight status.

Furthermore, incentive structures may discourage physicians from making independent recommendations. Many providers prescribe soldiers medications that may have side effects that can impair functioning, but writing profiles to communicate side effects take time to complete. Soldiers can obtain impairing medications over-the-counter without negative ramifications of profiles. Duty limitations may reduce patient satisfaction and decrease use of medical care. Soldiers may treat themselves without medical supervision. If a physician increases restrictions on soldiers taking potentially

²⁶Impairing drugs need not be controlled substances or narcotics, but can include over-the-counter medications, like Benadryl, which cause significant drowsiness.

impairing medications to promote safety but acts outside of regulations, tensions may rise with unit leadership who need to fill the gap created by the reduced functioning soldier.

In my experience, units (companies) with mission tasks focused on maintenance activities have lower FMR rates with more soldiers experiencing medical problems compared to other units (with the primary mission of engaging the enemy). If pilots have enhanced medical standards with safety in mind, perhaps those performing maintenance should also be held to higher standards. Organizational rules create multiple layers of checks and balances in hopes to catch mistakes incurred at earlier parts in the system. Is it safe to plan for checks and balances at the end of the system to find all mistakes when some mistakes could easily be reduced earlier in the process? Could some tensions be reduced if one set of medical standards applied to all military personnel?

Case 26: Medication Availability and Use

Military medicine provides unique opportunities for physicians to provide prescription medications directly to patients, limiting steps allowing pharmacists to vet prescriptions. In garrison, unit physicians are restricted from maintaining or distributing certain medications such as narcotics or psychotropic medicines. These restrictions are lessened when physicians are deployed. FORSCOM providers may control a variety of medications even though MEDCOM pharmacies exist in close proximity. Immediate availability of medications may increase the likelihood providers prescribe them, lessen perceptions of negative side effects, and eliminate checks and balances regarding appropriate usage and dosing. Although FORSCOM facilities use electronic health records, unit-level distribution of medications can circumvent the electronic prescribing

standard, reducing availability of information to others.²⁷ Examples where unit-level dispensation of medications lead to tensions include antibiotic use for urinary infections, atypical antipsychotic medicines for sleep, and use of certain pain medications.²⁸

Unit providers may treat soldiers with painful urination under the diagnosis code of urinary tract infection after completing a dipstick analysis of urine at an aid station. However, urinary tract infections in young adult males are extremely rare—sexually transmitted infections are more likely. The availability of treatment in aid stations may influence treatment decisions and remove medical checks and balances. A pharmacist may raise questions when a provider has high prescription rates for antibiotics—current medical initiatives include reduction of antibiotic use. Patterns of antibiotic use may uncover public health hazards such as inappropriate treatment of sexually transmitted infections, which allows for continued spread of disease. When MEDCOM staffs discover FORSCOM providers treat male soldiers for urinary tract infections without utilizing the MEDCOM laboratory or pharmacy, tensions increase between MEDCOM support personnel and FORSCOM providers. FORSCOM providers’ reputations of competence and trustworthiness decline in the minds of MEDCOM staffs.

Sleep medications are another area of contention. On deployment, some military physicians provide all soldiers a few tablets of Ambien to take if needed for sleep on the plane and to help adjust to the new time zone. Mass distribution of controlled substances

²⁷Providers may annotate medication use within clinical documentation. However, medications provided without electronic prescription or dispensation fail to register on the patient’s electronic medication record. Many medications provided through aid stations fail to register on the patient’s official electronic medication record

²⁸Each of these topics is based actual observances and not theoretical ideas.

undermines risk associated with the medications. Soldiers receiving sleep medications on one deployment may expect them on subsequent deployments. Not providing medication on later deployments can create tensions between soldiers, commands, and providers.

In addition to Ambien, physicians commonly use psychotropic medications to improve sleep. Some providers use atypical antipsychotics to aid with sleep, which can also improve symptoms of anxiety and PTSD. Others use tricyclic antidepressants, which may include added benefits of reducing pain and depressive symptoms. However, these medications have side effects, which may include weight gain, insulin resistance, and development of diabetes. With time, new information becomes available and warnings arise encouraging additional medical screening for individuals taking certain medications. Pharmacists are often the first line of defense in announcing new warnings. Unit-level distribution of medications reduces the effectiveness of pharmacy crosschecks because it evades vetting prescriptions through the pharmacy. Ultimately, patients may take risky medications without the knowledge of adverse effects for prolonged time periods before learning of safer alternatives. If new providers or pharmacists discover potential problems and recommend additional testing or changes in treatment, the patient may decrease trust in his previous provider and military medicine. Difficulty in trusting providers may contribute to tensions in future patient-physician relationships.

Pain medications also create tensions. Tramadol is a non-narcotic medication that works at narcotic receptors. While tramadol is not controlled by the food and drug administration, over 2.6 million people in the United States reported using tramadol for non-medical purposes in 2011 with 10 states requiring the medication to be treated like a controlled substance (Drug Enforcement Agency 2013). Tramadol is not an “anti-

inflammatory” and is not comparable to Motrin (also dubbed vitamin “M”), which increases its demand among soldiers. Over-the-counter medications like Motrin and Tylenol have a negative connotation amid many soldiers who believe that prescription medications are more likely to improve pain. Since it is uncontrolled, several aid stations can directly distribute tramadol, increasing the ease of use for military providers to treat soldiers who demand strong pain medications.

The medical culture promotes treating pain. Outside institutions, such as the joint commission accrediting agency, audit charts to ensure physicians both conduct pain assessments and treat pain. Providers receive negative feedback on chart audits if they fail to properly assess pain or discuss treatment of pain in their care plans. Thus, providers rarely hesitate to provide pain medications. Unfortunately, tramadol is associated with seizures, has high potential for abuse, and per amplified medical standards—is a non-deployable medication (CENTCOM 2012). However, its availability gives tramadol the perception of being a non-duty limiting medication, increasing its use.

The availability of medications is designed to help soldiers and enhance medical care, but it comes with unintended consequences. When discovered, these unintended consequences create multiple tensions between MEDCOM and FORSCOM providers and their support staffs. It influences soldiers and their perceptions of provider credibility as well as soldier expectations and entitlements for medical treatment. Likewise, it can increase soldier skepticism regarding the quality of care provided by the MHS. When soldiers express concerns or discontent regarding medical care, policy makers may add additional measures to improve care, which can create further tensions.

Case 27: Medical Problems and Disciplinary Problems

Quite often, medical problems coexist with disciplinary problems. A soldier may suffer from a torn ligament in the knee and require surgery from an injury sustained on active duty but also face charges of illegal drug use following a positive urinalysis test for marijuana. Soldiers may undergo administrative separation boards, which create tensions for soldiers unsure of what military benefits they will keep. Soldiers may ask medical providers to expedite treatment to ensure they (soldiers) get surgery prior to separation. Some facilities, when aware of a military chapter to discharge a soldier, will stop non-urgent medical treatment and allow the VA to complete care. Ultimately, administrative separation requires a chapter physical to determine if the soldier has a medical condition for which an MEB is required. Some soldiers petition the longevity of their injuries and campaign for MEBs believing medical problems trump administrative rulings.

Some soldiers have permanent profiles and are actively involved in the MEB process when they get into trouble with the law. Some of these soldiers feel they have guaranteed rights and benefits once entering the MEB process. Believing they have assured benefits, soldiers may engage in risky behaviors and break the law. Soldiers who break the law may undergo administrative separation proceedings and can possibly lose their entitlement to medical benefits. Soldiers undergoing MEBs typically have strong links with the medical system and may make pleas to physicians to aid in their care. Physicians, with strong desires to help patients, may alter treatment plans upon learning soldiers could potentially lose benefits after separation, and physicians may offer soldiers treatments that would have normally been deferred to the VA.

Although some soldiers have medical problems preceding disciplinary problems, others discover medical ailments after they are in trouble with the law. Consider a soldier facing legal charges and military separation after drinking alcohol heavily and assaulting another person. The soldier has deployed several times and has gradually increased alcohol consumption. The soldier is more irritable and aggressive than he was when he enlisted. Further evaluation suggests this soldier has undiagnosed and untreated PTSD, which may explain the self-medication with alcohol and increase in aggressive behavior. Multiple combat deployments may contribute to PTSD and criminal behavior. Should this soldier be stripped of benefits given his current infractions with the law? After all, untreated medical problems acquired while providing service to the country during multiple combat deployments possibly contributed to his current legal proceedings.

The above examples may create tensions between physicians, patients, commanders, and the legal system. Frequently, physicians cannot make definitive causal claims regarding patient diagnoses or necessary treatments. Instead, physicians can only make probable diagnostic suggestions. Nonetheless, many stakeholders consider physicians as experts and place significant weight on their recommendations. Physicians, wishing to be accurate and not make mistakes, may make broad generalizations to avoid overly specific diagnoses or exclusion of other diagnoses to ensure maximal benefit to the patient. This creates tensions between commanders and lawyers who wish for specificity, which enables subsequent disciplinary actions and prosecution.

Case 28: Playing the System

Military physicians commonly experience frustration when they believe soldiers are manipulating the medical system to obtain benefits. Many soldiers openly discuss

medical benefits and share stories about disability ratings and compensation, encouraging others to bring up complaints to providers so they (soldiers) can receive increased benefits. Some soldiers state that briefers from the VA instruct soldiers terminating their service to request medical sleep studies because discovery of obstructive sleep apnea comes with a 30 percent medical benefit. Soldiers without history of sleep problems ask their medical providers for referrals to obtain sleep studies. Some soldiers with duty limitations preventing them from running on physical fitness tests are spotted in the gym playing basketball, rushing up and down the court, and pivoting without problems on their “damaged” knees and ankles.

Providers often struggle with what they should do when they spot irregularities in soldiers’ histories and observed activities, if anything at all. Patients are entitled to privacy, which makes an on-the-spot inquiry in public inappropriate. A primary care provider may have more contact with a soldier to discuss apparent discrepancies than a specialist, but the specialist may have greater concerns with observing discrepant behavior. Providers can create clinical encounters in the electronic medical record to state observations outside the clinic, but provider developed clinical encounters may pose problems for the health clinic administration because these encounters lack sufficient medical screening data required by accrediting agencies and can mislead administrators about a provider’s workload and efficiency.

The military campaigns against fraud, waste, and abuse. Medical providers serve in key positions to uncover medical fraud. However, speaking up may impair quality physician-patient relationships. A patient may have one fraudulent claim, but this claim does not discount other legitimate health care needs. Some providers begin military

service seeking to prevent soldiers from making deceitful claims. With time, providers learn that resistance decreases patient satisfaction, and patients find alternative providers willing to service their specific needs. Providers eventually lose faith in the medical system and stop resisting potentially fraudulent claims because resistance is likely futile and can negatively influence metrics used to judge provider performance. Furthermore, providers learn they have little to no power in improving the system.

Other providers find it troubling to remain complacent when they see patients manipulate the medical system for self-gain. Providers may look for undercover ways to provide warning of suspected malingering or over-exaggeration of medical problems in the medical record. Providers may discuss concerns with supervisors and let supervisors decide whether or not to investigate the situation. Providers may alter how they provide medical care to patients that they perceive are playing the system. Doctors may choose to forgo recommending restrictions for soldiers, even when medically indicated. Likewise, physicians may skip medical testing for soldiers because they think soldier requests are based on personal motivation for secondary gain rather than actual medical need.

Ultimately, tensions arise because physicians have access to conflicting information regarding observed medical problems and perceived patient motivations. Doctors balance physician-patient relationships with crossing over lines of investigation. Physicians experience tensions between fostering patient trust and confidentiality with remaining honest to the military organization at large. Providers balance personal incentives resulting from action or inaction. Some tensions arise because physicians lack a sense of control and feel like pawns within a larger system.

Case 29: Sexual Assault Forensic Examinations

Sexual assault is a problem in the military that is currently receiving significant attention from the media. Accordingly, the military is increasing sexual assault awareness training and prosecuting more alleged perpetrators in attempts to make a stance against sexual assault. Military medicine gets entwined into sexual assault initiatives through the conduct of sexual assault forensic examinations or “rape kits” collected by sexual assault forensic examiners (SAFEs). Many use the acronym SAFE to refer to both physicians serving as forensic examiners as well as to the evidence kit itself. Physicians serve as SAFEs whereas some nurses are trained as sexual assault nurse examiners, or SANEs. The evidence kits require significant medical knowledge to complete. Tensions arise from assigning personnel to perform exams, completion of exams themselves, and the enduring obligations that remain after exams are complete.

SAFE examinations are lengthy, often requiring several hours to complete. The legal nature of the examination requires the undivided attention of the medical provider from the initiation to completion of the exam to ensure appropriate chain-of-custody of the collected evidence. SAFE exams are time-sensitive and treated as emergencies; however, some find it difficult to elevate SAFE exams to urgent status when other patients present with more immediate threats to life, limb, or eyesight. Physicians may struggle to respond urgently when patients wait a couple of days to present after an assault. Patients may require time to process what happened, report the assault, and seek care, but providers may respond reluctantly and portray a sense of being inconvenienced when patients present in delayed fashion. Tensions build because delayed presentations diminish the quality of evidence collected, which can call into question the reason for the

examination (to collect evidence) in the first place. Providers may feel the lengthy exam competes with completion of other tasks and responsibilities, which they believe is a more productive use of time. Both patients and examiners sense each other's body language and demeanor through their interactions. Tensions develop when patients feel judged and believe providers do not find their complaints legitimate.

SAFE examinations are not unique to the military. However, the military approaches and prosecutes sexual assault differently than the civilian community. Evidence, once collected, is signed over to military investigators, examined by military pathologists, and presented in military court proceedings. Military investigators enjoy obtaining evidence through military facilities, which improves the evidence chain-of-custody and their ability to use evidence during prosecutions. Not all military facilities have emergency departments to respond to after hours urgencies. Thus, military installations without emergency departments depend on civilian institutions to provide after hours emergent care. Unfortunately, some civilian (German) emergency rooms struggle to provide proper care to sexual assault victims, at least according to American standards and ideals. Substandard medical care to sexual assault victims along with the increasing importance addressing sexual assault in the military facilitated creation of on-call programs for military providers to respond to assaults and conduct SAFE exams.²⁹

²⁹In Bavaria, there is a SAFE exam call program where military providers respond any time of day or night to conduct SAFE exams when sexual assault is reported. Investigators reported problems with the chain-of-custody of evidence collected by German providers, who interrupted their exams to attend to other emergencies. Likewise, victims complained of lack of compassionate care. Some reports include that patients were stripped naked for exams in non-private rooms. The general consensus among patients and investigators is that the SAFE call program has improved patient satisfaction and increased the military's ability to prosecute sexual assaults that occur overseas.

Tensions begin with choosing providers to conduct examinations. SANEs can conduct exams in hospitals and emergency rooms, but clinic call programs require higher-level credentials. Nurses in emergency rooms have access to physician supervision, which is absent after hours at a clinic. Accordingly, physicians are tasked to take call and conduct after hours SAFE exams. However, only military providers are tasked with call because civilian providers would require additional compensation to pull call. Furthermore, clinics rely on MEDCOM providers to fulfill the MEDCOM initiative. Some duty locations lack sufficient MEDCOM military providers to conduct call, and one provider may serve on call continuously without break. When limited providers are available, interest in voluntary participation declines.³⁰ With insufficient voluntary participation, the program becomes mandatory for military physicians assigned to MEDCOM facilities. Mandatory and frequent call can contribute towards resentment and low morale among physicians, especially when physicians in some locations endure a heavier call burden than peers in other regions. In some locations, MEDCOM facilities share duties with other clinics to create regional responsibilities and try to incorporate FORSCOM providers into call coverage, producing additional tensions.

Sharing responsibilities across facilities and organizations increases tensions. First, command authorities differ between separate MEDCOM clinics and FORSCOM units. A person creating a call schedule does not have the authority to assign individuals

³⁰On call providers cannot drink alcohol or travel, but must be able to respond to a reported sexual assault within 60 minutes. The ability to travel and enjoy a local beer is a positive incentive of being stationed in Europe. Some providers feel the SAFE program may improve soldier care, but they are reluctant to become trained examiners because the program requires excessive uncompensated personal sacrifice. Providers are not incentivized to participate in the program—they give up more than they gain.

to the call-roster unless their respective commanders support it. Second, each unit uses its own scheduling procedures for regulating training, vacation, and other work schedules. Problems exist in sharing information, and the person assigning SAFE call may task a physician to take call even though the assigned physician already has approved vacation.

Providers each have unique reasons why they do not want to participate in SAFE exams. In addition to being negatively incentivized to take call, many physicians feel inadequately trained to conduct the exams.³¹ Some fear the long-term consequences of being called into court as a witness. Male physicians may feel uncomfortable examining female victims, concerned that their gender may exacerbate the trauma already endured by their patients. Some providers may find it difficult to generate empathy or relate to assault victims, suggesting other providers are more qualified to conduct forensic exams. Other providers are sexual assault survivors and wish to avoid conducting SAFE exams in fear of reliving their own traumatic experiences. These providers may struggle to voice concerns and fear being judged by superiors. When limited providers are available for the call pool, non-participation increases inquiry by providers left to take call, which can jeopardize the privacy the non-participating provider wishes to keep.

³¹During my residency training, all SAFE exams required the physical presence of an attending physician during the exam. However, there were no additional credentials for attending physicians to conduct SAFE exams. Prior to participating in the SAFE call program in Bavaria, all SAFE examiners require additional training. For me, this included an 11-hour self-paced tutorial as well as face-to-face instruction. The live instruction was truncated (for myself and others) to facilitate completion and increase the number of qualified examiners. Subsequent MEDCOM policy mandated all SAFE examiners complete a 40-hour live course including simulated live-patient laboratories and examination. Those with previous training were grandfathered in and did not require the new training. Significant restrictions on approved trainers and budget constraints for training and travel limit the current ability to train providers as forensic examiners.

Tensions continue with the conduct of SAFE exams. Personal biases may influence interviews and how findings are documented. Time constraints and limits on productivity measures may influence how long providers spend completing exams. Providers identifying with patient care may perform partial exams based on patient history to maximize patient comfort. Those identifying as investigators or with more experience testifying in courtrooms may conduct complete exams regardless of patient history to ensure maximal collection of evidence and consistency over time. It is easier to answer questions in a courtroom years after the assault when a provider performs the exact same exam for every patient.³²

Tensions may differ when SAFE exams are conducted on alleged victims versus alleged perpetrators. A physician may decline collecting evidence for a patient if he has already established a physician-patient relationship with an alleged perpetrator. Having a primary care provider collect potentially incriminating evidence from his patient violates trust and the physician-patient relationship. Likewise, many forget that sexual assault is not limited to male perpetrators and female victims. Unforeseen tensions may arise when male victims, female perpetrators, or homosexual and bisexual patients are involved with assault. A physician's personal biases contribute to tensions. Once exams are complete, tensions follow providers into courtrooms. Tensions are multiple but distinct for each

³²A physician served as the spokesperson for the video training tutorial and recommended conducting patient-centered forensic exams in accordance with the patient's reported history and desires. The nurses that taught my live training session stressed the importance of doing everything in the evidence kit, all of the time, because patients may be too embarrassed to tell the complete truth, they may not remember the truth, and because consistency makes testifying in court easier.

individual provider called to testify. Ultimately, experiences in court provide feedback and shape how providers approach subsequent SAFE exams.

An important question to answer in understanding tensions related to SAFE examinations in the military is: What level of choice did the provider have in completing the examination? Military providers, as such, may be ordered to conduct SAFE exams to a larger degree than civilian cohorts, which can contribute to tensions. Organization structure and relationships may discourage providers from publicly voicing concerns. Some of the tensions related to SAFE exams are unintended consequences related to important initiatives to improve care and response for victims of sexual assault.

Case 30: Medicine and Military Weight Standards

The military establishes weight standards for service members based on gender, height, and age. When service members exceed the allowed weight for a given height, the Army approximates soldiers' body fat percentages by "taping" them.³³ Soldiers that exceed weight specifications and "taping" standards do not comply with overall Army weight standards and are subject to military separation. As the military reduces its force size, many expect increasing enforcement of weight standards with more overweight soldiers being administratively discharged from the military.

Many perceive weight regulations as being arbitrary and suggest that healthy, fit soldiers can fail standards. Some soldiers that struggle to meet weight standards may seek medical assistance. Some soldiers request weight loss medications; others request

³³Taping involves taking circumference measurements of the waist and neck for males. Measurements for females include waist, neck, and hip circumferences. In the past, female measurements included wrist, forearm, neck, and hip circumferences without measurement of the waist.

liposuction. A smaller fraction may request abdominoplasty. When soldiers present for medical care, physicians must balance the soldiers' medical needs and desires, military regulations, and the soldiers' covered medical benefits. If the MHS does not provide treatments, soldiers may seek and personally pay for desired treatments elsewhere.

Liposuction is not a covered military benefit; it is a cosmetic procedure. Nonetheless, some military commanders recommend soldiers receive liposuction because it can help soldiers pass tape measurements and weight standards. Tensions arise when military commanders recommend soldiers receive uncovered medical treatments. The perceived arbitrariness of weight standards further fuels tensions. Yet, some soldiers successfully receive "uncovered" procedures that help them pass weight standards, increasing tensions among soldiers denied similar care. When some soldiers obtain approval for "uncovered" procedures, other soldiers feel entitled to equal treatment.

Some soldiers are obese when they enter the military. Through basic training they may lose upwards of 100 pounds. After losing weight, excess skin flaps remain. These skin flaps not only worsen tape measurements, they may harbor recurrent fungal infections and make wearing body armor difficult. Some soldiers are approved to receive abdominoplasty as a medical benefit because they have demonstrated significant weight loss, struggle to comply with weight standards, and may experience medical problems related to excessive skin. Sometimes, plastic surgeons recommend liposuction after abdominoplasty. If the abdominoplasty was approved, is subsequent liposuction also

approved?³⁴ If one soldier receives approval for liposuction but not another, tensions may increase between service members, commanders, and the health system.

This case introduces tensions created by pairing “cosmetic procedures” to “medical indications.” Additional examples include breast reductions for back pain, sympathetic nerve surgery for excessive sweating (hyperhidrosis), stripping of varicose veins for leg pain, and bunion surgery for pain. It is often difficult to distinguish medical indications from potential cosmetic motives. These cases are beyond the scope of this thesis, but highlight pervasiveness of related tensions.

Case 31: Conflict Between Rank and Position

The MHS consists of multiple medical providers, not just physicians. PAs commonly serve as primary care providers for soldiers in FORSCOM units. PAs require supervision from physicians. The Army attempts to ensure PAs are clinically supervised by mandating physicians to serve in a PA’s rating chain for official evaluation reports.

Both military physicians and PAs are officers. At times, physicians are assigned to units to supervise PAs that outrank them.³⁵ Within medicine, PAs practice medicine under a physician’s license; accordingly, physicians can direct care provided by PAs. In the military, senior-ranking officers can lawfully order junior-ranking officers. Military

³⁴I have cared for soldiers approved for abdominoplasty through military plastic surgeons, but surgeries were deferred to civilian networks. The civilian providers recommended a package of abdominoplasty and liposuction (following recovery of abdominoplasty). Given the timespan between abdominoplasty and liposuction, the soldier required new authorizations for liposuction. The soldier received approved authorizations based on initial subspecialist recommendations, though similar soldiers without a history of abdominoplasty did not receive authorizations for liposuction.

³⁵In my first assignment following medical residency, I served as a captain tasked with the responsibility of providing medical supervision to a PA holding major rank.

units may place greater emphasis on rank than on educational degrees or certifications. Tensions arise when military physicians must supervise senior ranking PAs, especially when serving in environments where leadership values rank over certification. Tensions increase when rank disparity crosses the junior-grade officer to field-grade officer threshold (captain to major) as rules-in-use grant significant privileges to field grade officers. Although a junior-ranking physician can medically supervise a senior-ranking PA, the physician cannot formally evaluate the PA because of his lower rank. Inability of lower-ranking physicians to enforce medical standards through formal evaluations decreases incentives for senior-ranking PAs to comply with physician requests.

In addition, the FORSCOM environment, where discrepant rank relationships between military physicians and PAs typically occur, also confounds tensions. Military physicians typically serve short time periods in FORSCOM units where PAs serve longer rotations. PAs establish strong relationships with FORSCOM commanders during long service rotations before doctors arrive to the unit for shorter, more temporary assignments. The commander-PA trust relationship along with historical tensions between military commanders and MEDCOM physicians may carry over into tensions between military commanders and their new FORSCOM physicians until a relationship is firmly established. Without active commander support, it is difficult for junior-ranking officers to supervise senior-ranking officers. The need for supervision increases when the senior-ranking PA requires performance improvements regarding medical standards of care. Accordingly, physicians may experience tensions in trying to improve the quality of care soldiers receive when they maintain responsibility for care but lack the necessary power to enforce required changes.

Of note, in the past PAs held warrant officer ranks. Physicians, entering the Army as captains, always outranked warrant officers. PAs were advanced to officer ranks to improve retention in the military. Hence, current rank-related tensions are unintended consequence of previous actions. Although reverting back to previous rank systems could alleviate rank-related tensions, tensions regarding pay and compensation may resume.

Case 32: Supervising More Experienced Personnel

Military doctors may provide administrative supervision to non-military physicians with greater levels of clinical experience. Many military medical facilities (within MEDCOM structure) employ civilian physicians as either government service (GS) employees or contractors. Overseas, local national physicians are added to the mix. Excess work results in overtime pay or compensatory time off. Thus, clinics minimize administrative duties for civilian doctors and instead, shift duties to military providers. Military doctors do not require additional pay or time away from patient care to complete extra duties, and duties may enrich narratives on the physicians' evaluation reports.

Junior physicians may serve as medical directors or clinic chiefs immediately following completion of residency training. A newly trained military physician may be the only active duty provider at a clinic. Consequently, relatively inexperienced military physicians are assigned administrative responsibility to supervise and evaluate civilian physicians that may have 10-20 years more clinical experience than they do. Medical communities value experience with rules-in-use favoring submission to hierarchy, which is based on years of experience (not military rank). Tensions regarding power and control arise when junior physicians supervise and evaluate senior physicians that the junior physicians rely on for clinical advice.

Tensions grow as medical systems change. Military physicians in supervisory roles are evaluated based on their ability to implement changes within their clinics. Senior civilian medical providers are often resistant to change. Civilian providers have stability and may work in the same clinic for many years. They have little incentive to change knowing their military leadership rotates away from the clinic every two to three years. Civilian physicians serving in GS positions feel secure with their jobs, partially because of the high demand for physicians but also because dismissing GS employees is extremely difficult. Military physicians may discover it is faster and easier to await orders for a military move than to challenge a stubborn civilian employee, so they forgo proper counseling and pass the difficult employee to the next supervisor. Taking corrective measures against senior civilian employees is further magnified when junior military physicians rely on clinical experience and advice from the senior physicians who demonstrate disciplinary problems.

Case 33: Choosing Medical Specialties

The Army currently supports physicians in 41 specialties. Most doctors enter the Army on scholarships before completion of medical specialization. Service obligations for physicians vary depending on the type and duration of scholarships. Some physicians consider their specialty based on service in the military and others consider specializing in something useful in the civilian sector upon completion of their service obligation. Civilian compensation for certified physicians surpasses military compensation, though military residents earn more than civilian counterparts. After residency training is complete, the military grants various specialty bonuses to help decrease (but not eliminate) the discrepancy between military and civilian pay. Some physicians take

military loans to pay for medical school, earn higher wages as military residents, and then leave the military at their earliest opportunity and receive higher compensation.

Military physicians consider multiple factors including individual interests, pay, scope of practice, lifestyle, duty locations, and deployments when choosing a medical specialty. In general, increased specialization comes with a smaller scope of practice, higher compensation, greater certainty in military assignments, and reduced frequency and duration of deployments, which may contribute to improved lifestyles. Specialists serve shorter deployments to prevent degradation of skills. As experts in a specific area, specialists maintain a certain degree of prestige. Many find it appealing to focus on a narrow topic of medicine as it provides an illusion of greater control and reduction in uncertainty. These perks may facilitate decisions to specialize outside of primary care.

Primary care, on the other hand, includes a broad scope of practice and decreased compensation. Given a broad scope of practice, primary care providers can fill all types of assignments in all duty locations. Primary care providers function within their scope of practice (minus pediatricians and geriatricians) while deployed, so they are able to deploy more frequently and for longer periods of time. Primary care occurs at a fast pace. The large variety of patients may prevent boredom. Primary care providers need not be experts because they can always tap into specialists to provide advice. Primary care physicians may experience long and exhausting days and receive disproportionate compensation for actual hours worked compared to physicians in other specialties. Nonetheless, primary care physicians may value bonds created in physician-patient relationships directed towards improved health over money in the bank.

The variety of medical specialties within the military creates tensions between providers in the MHS. Pediatricians, as primary care physicians, may serve in FORSCOM positions and deploy for a full year caring for adults rather than children. Pediatricians may feel treated unfairly because specialists like cardiologists only deploy for six months at a time to prevent skill degradation, but pediatricians do not see children while deployed. If pediatricians successfully reduce their deployments to six months, tensions grow among primary care physicians treating adults, who experience more frequent and longer deployments but receive the same rate of compensation.

Current trends in physician specialties favor specialization in non-primary care over primary care specialties—not just in the military—but also in the civilian sector of the United States.³⁶ Non-primary care specialties are more competitive than primary care specialties. In the military, non-primary care residency slots fill near capacity. This leaves primary care open for residents not accepted into other programs and contributes to a negative stereotype of primary care physicians. Some physicians believe any doctor can be family physician while only more qualified doctors can complete other programs. Physicians, after sacrificing several years in school to obtain degrees, are attracted to specialties that carry prestige. Only a few physicians find prestige in primary care.

The Army tracks a variety of information regarding physicians. It reviews some data at aggregate levels to include the number of physicians in the Army and the number

³⁶Physicians enter primary care specialties at a slower rate than the increasing demand for primary care supply. Adding pediatricians and internal medicine physicians into primary care numbers often overestimates supply of available doctors because many further subspecialize outside of primary care. In 2010, I was informed the Army filled less than 70 percent of family physician slots. Popular news media and family medicine blogs openly discuss the shortage of primary care physicians, especially with increasing demands secondary to new laws mandating universal health care coverage.

of physicians in graduate medical education. At times, it appears as if the Army is more concerned with aggregate data than overall assessment of military needs. Graduate medical education and fellowships are offered as a tool to retain physicians within the military. Some physicians obtain specialized training that appears contradictory to true military needs. For example, the military trains pediatricians to become neonatal intensive care providers and care for critically ill newborns. If the motto of Army medicine is to conserve the fighting strength, what role do neonatal intensive care providers have in caring for soldiers in the deployed environment? The government hires civilian providers to work in military hospitals—could civilian physicians serve in that role? If the military restricted medical training options when recruiting medical students for military service, perhaps fewer candidates would sign contracts with the military. Decreased interest in military service could result in critical shortages of physicians on the military payroll, based on aggregate numbers.

Tensions involving different medical specialties partially result from changes in military initiatives encouraging specialization immediately after internship. Elimination of the GMO tour after internship results in specialization prior to service in military units and delays a physician's exposure to the military. Furthermore, physicians experience degradation in specialized skills when they report to FORSCOM units and deploy after completion of specialty medical training. Changes in training initiatives predated the War on Terrorism, which has reinforced the need for primary care providers. Unfortunately, frequent and long deployments have deterred some from choosing primary care and have influenced others to separate from service rather than continue on active duty.

Case 34: Stewardship of the Profession

The military promotes stewardship as a pillar of the profession of arms. Senior leaders act as stewards by mentoring and developing younger soldiers with aims of long-term improvement of the military profession as a whole. Military physicians experience tensions regarding acting as stewards of the profession both in supporting military education of physicians and in recruiting medical students.

The Army requires officers to attend professional military education schools at various points in their career. This education is intended for officers of all branches. However, military schooling for physicians is often truncated. Special basic courses for physicians and dentists teach officers basic information about the Army in a shorter time period.³⁷ Many physicians are promoted without attending military schools commensurate with rank. I watched the program director of my residency program pin on the rank of lieutenant colonel without ever attending the Captain's Career Course. Some senior physicians say professional military education is only recommended and not necessary for promotion. Some senior physicians advise junior physicians they can apply for constructive credit after deployments and forgo formal schooling.

Military medical systems, driven by business metrics and productivity measures, are strained by deploying providers and may not want to send physicians for advanced military education. Rules-in-use suggest military training is not important for doctors.

³⁷I attended a six-week officer basic course intended only for physicians and dentists. I remember spending extensive time learning how to salute and march and spending one week in the field. I do not remember learning useful officer skills, but I entered the basic course after receiving a commission through the Military Academy.

Senior physicians, charged with missions to provide patient care, refuse to send doctors to training because they are needed to accomplish the clinic mission.

Recently, policymakers started expressing concerns with MEDCOM leadership and changed incentive structures for military physicians, increasing the importance of professional military education and refusing to grant constructive credit for professional military education.³⁸ Suddenly, a backlog of physicians required military schooling. To allow physicians to attend schooling while minimizing impairments on clinics, a two-week school was designed exclusively for physicians to clear the backlog. Upon clearing the backlog, more physicians will attend the full-length course. Tensions arise when physicians attending the long course feel their time is wasted by not serving as physicians in the capacity of patient care. The short two-week course, designed to improve military education for physicians, perpetuates a culture opposed to professional military education (when replaced by full length courses) and creates cleavages in the culture of stewardship the Army seeks to promote.

Medical students who will join military ranks upon medical school graduation rotate through military hospitals and provide an excellent opportunity for stewardship of military medicine. However, some military physicians experience tensions in recruiting and mentoring medical students for their specialty. Medical students ask physicians to share experiences and advice. Physicians may struggle to provide honest feedback—not wanting to give medical students a negative perception of military medicine—but also not wanting to withhold their own perception of the truth. Medical students work most

³⁸My understanding is the Walter Reed Medical Center neglect scandal in 2007 uncovered problems with leadership in the MHS and served as a catalyst for change.

closely with residents, who have little experience with military service (especially with elimination of the GMO tour). Residents may discuss medicine but struggle to relate how their specialty relates to military service. Some physicians actively promote their service and military medicine. Others try to convince medical students not to make the same mistakes they did and choose a different specialty.

There are divisions between senior leaders within departments and more junior physicians. At times, greater stewardship is placed on recruiting new students than developing already accepted residents, which can create tensions between residents and teaching faculty. Tensions involving military physician interactions with medical students mirror the tensions individual physicians experience in choosing medical specialties. However, tensions created by the concept of stewardship may reveal cleavages between loyalties to the military on one side and medicine on the other.

I recently requested a position as a FORSCOM physician to care for soldiers. As a family physician and flight surgeon with previous operational experience that has attended all required military professional education, I was highly qualified for the job. However, I learned the position, which was located near a large medical center, was slotted for a subspecialist (interventional radiologist) so the specialized physician could obtain operational experience and maintain his skills by working at the medical center. MEDCOM opened up operational assignments to alleviate primary care physicians from the burden of prolonged, repetitive deployments (and presumably increase retention in the military). Although demonstrating stewardship to medical professionals, MEDCOM selected specialized physicians less qualified to provide the medical care soldiers require, and failed to demonstrate stewardship to the Army at large. As a primary care provider

actively examining tensions in military medicine, I cringed at uncovering more perverse incentive structures influencing decisions and creating tensions.

Case 35: Nidal Hasan

Nidal Hasan, an Army Psychiatrist, fired weapons directed towards other soldiers during medical pre-deployment screening procedures killing 13 people and injuring 30 more. His actions, militant in nature, but directed towards members of his own service, contradicted the ethos of both the profession of arms and the profession of medicine. This case illustrates how individual factors contribute to the context that influences action situations. Nonetheless, it illuminates additional tensions in military medicine.

Nidal Hasan displayed warning signs and peculiar behavior prior to engaging in mass murder. Hasan's performance in the military psychiatry residency was less than optimal, but concerns were not accurately reflected on evaluation reports and Hasan was transferred to another unit. Hasan's transfer contributes to a perception that medical providers do not appropriately police their ranks; Medical providers help fellow physicians succeed and cover-up potential mistakes. Although other military branches also move problematic personnel, medical providers wear higher rank. Nearly all military physicians are promoted to major, a field-grade rank. While Hasan's behaviors are not representative of other military physicians, the murder of soldiers by a physician inadvertently widens tensions between the FORSCOM and MEDCOM community.

This case is unusual and tensions uncovered are small compared to other cases. However, the case illustrates the importance of individual narratives contributing to tensions. Tensions are not limited to conflicts between providing patient care or

promoting military service. Individual narratives influence tensions as much as the organizational context in which tensions occur.

Conclusion

This chapter introduces the context of military medicine and illustrates a network of relationships common to military physicians that contribute to action situations within Army medicine. This chapter uses concepts from the IAD framework to analyze multiple case studies. These case studies become contextualized, narrative models that introduce multiple tensions military physicians face by identifying relationships, perverse incentive structures, and unintended consequences fueling feedback loops. The next chapter summarizes the results of the study, and proposes that reframing the context of military medicine as an independent profession may reduce some tensions military physicians experience.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

The primary research question is: What professional tensions arise for the military physician, who straddles the profession of medicine and the profession of arms? Chapter 4 applies the IAD framework to Army medicine. It describes the context of Army medicine and illustrates patterns of relationships among stakeholders. Chapter 4 uses case studies to review multiple action situations and to analyze relationships between actors, incentive structures, and unintended consequences resulting from systems in place.

This chapter summarizes the tensions that chapter 4 uncovers. I conclude that tensions are more expansive than explained by mixed agency. I suggest that framing tensions as mixed agency problems intensifies the tensions military physicians experience by placing one profession against the other. I contend that tensions are an inherent part of military medicine and demand extensive training and expertise to navigate. Reframing military medicine as a unique, independent profession empowers military physicians to independently approach situations and make decisions mutually beneficial to both patients and the military while minimizing tensions created by the mixed agency frame.

Summary of Tensions

Military physicians experience tensions during everyday practice that expand beyond prioritizing the needs of patients against the needs of the military. Tensions begin at the patient level where a soldier's medical needs and personal desires may conflict. Tensions are amplified by incentive structures that reward physicians for satisfying patients over providing proper medical care. Accordingly, physicians may provide

substandard medical care and impair military objectives. Alternatively, physicians may provide care mutually beneficial to both patients and the military but suffer negative evaluations because they upset patients or sacrifice personal productivity in the process.

Additional tensions result from conflict between military regulations and providing high quality medical care. In some instances, evidence-based medical guidelines support greater levels of treatment than military regulations permit. In other circumstances, military institutions require more expansive medical evaluation than is otherwise recommended. Tensions are further complicated by relationships physicians have with each other—physicians desire respect and support from peers in addition to patients and superiors. Military regulations, CPGs, and accepted medical practices (both civilian and military) all come into conflict with each other and do not fall neatly into the best-for-patient versus best-for-military paradigm.

Institutional procedures create tensions. These tensions come from medical institutions and accrediting agencies, military institutional procedures governing physical exams and pre-deployment screenings, and operational procedures such as medical appointment processes within clinics and MEDEVAC procedures downrange. As problems arise, policymakers create new institutions to prevent reoccurrence of mistakes and alter incentive structures to influence change. Unintended consequences resulting from institutions contribute to more tensions. Each stakeholder analyzes outcomes differently and tugs on their relationships with other stakeholders to influence change—each stakeholder attempts to influence future actions of others in ways that are beneficial to themselves. This tug-of-war can inhibit collective action towards a common goal.

Attitudes and perceptions based on individual experiences exacerbate tensions. Organizational culture creates expectations among individuals. Failure for reality to meet individual expectations creates frustration and may influence actions. Changing organizational culture is difficult, especially when active policy and incentive structures dis-incentivize change. Individual motivations, based on individual values, goals, and interpretation of incentive structures influence actions and provide system feedback, which ultimately influences others within an individual's relationship network.

Conclusions

The case studies demonstrate multiple tensions that expand beyond the scope of mixed agency problems—choosing actions that benefit patients versus those that benefit the military. They also demonstrate tensions are more pervasive than wartime scenarios of interest to scholars. The case studies exhibit how military physician actions, despite tensions, can result in outcomes mutually beneficial to patients and the military as well as outcomes that are mutually detrimental. They illustrate a cultural divide between MEDCOM and FORSCOM entities, which appears similar to divides between the medical profession and the profession of arms. Cultural differences between MEDCOM and FORSCOM units create some unique tensions, but they also exacerbate other tensions through feedback mechanisms. Each entity, serving a distinct purpose, strives to reach independent goals, at times forgetting that both entities belong to the same Army.

Framing the tensions experienced by military physicians as mixed agency problems may exacerbate tensions. Providing two choices, acting in a military role versus a provider role, can influence individuals to take sides, even when non-biased solutions to problems may exist. Creating a culture that military physicians are physicians first and

officers second undermines their role as officers in the military and their ability to understand military missions and assist commanders in promoting force health and the well-being of the military. Although algorithms may assist military providers in understanding shifting roles and responsibilities from being physicians and officers, they still dichotomize the two professions.

Alternatively, one can reframe how tensions in military medicine are viewed and consider military medicine as a unique profession. Tensions are not merely aberrations between distinct professions meant to be resolved; but rather, they contribute to the very essence of military medicine. Military physicians require unique expertise in understanding soldier needs and how those needs change within the environment they operate in. Military physicians require trust from their clients, both soldiers and commanders, to help provide solutions beneficial to both. Understanding military medicine requires significant time and training. Completion of medical school and residency training, even within military hospitals, does not make physicians experts in military medicine. Rather, they must integrate with soldiers and military units and learn how the military operates. They must understand the military as well as medicine.

While this study examines case studies from the perspective of an active duty Army physician, others may share similar tensions. Civilian physicians working for the department of defense, nurse practitioners, and PAs may all experience analogous tensions as well medical professionals in the Air Force, Navy, and Coast Guard. Reframing military medicine as a unique profession may allow several entities to come together, examine various networks of tensions, and frame solutions in mutually supportive ways to promote health for service members across all military organizations.

Reframing military medicine as a unique profession alters the context contributing to action situations and how problems are solved, both through the eyes of the actors (military physicians) and the other stakeholders (commanders and patients) involved.

Recommendations

First, I recommend further research to gather opinions of medical professionals within the MHS and military commanders regarding what current problems in military medicine are. Questions to consider include:

1. Are there differences between military physicians and civilian physicians working in the MHS? If yes, what are they?
2. Do you consider military physicians as officers first, physicians first, or both equally? Please explain.
3. Do you believe the MHS is improving, worsening, or staying the same? Please explain.
4. What are your perceptions of military physicians whom serve GMO tours?
Would you recommend a GMO tour to a physician?
5. What are your opinions regarding professional military education? What military education should physicians receive?
6. What are your expectations of military physicians?
7. Does the military need active duty physicians? Please explain.

In addition to the above questions, one may provide questionnaires based on specific case studies and inquire about an individual's most likely response. For example, future research could provide a case study describing a soldier with cold symptoms requesting quarters and ask physicians to explain their most likely actions along with rationale.

Similarly, one could ask military commanders what actions they desire physicians to take regarding the same case. After requesting open-ended responses, the research may provide several potential action choices to elicit greater responses. Researchers may discover if participants may support previously unconsidered choices. Ultimately, additional research may support this study by affirming the variety of tensions physicians experience across a wide range situations. Likewise, future research can link tensions Army physicians experience with physicians in other branches of military service and non-physician medical providers.

My second recommendation is to examine the institutional structure of military medicine. What are the goals of military medicine? What are the goals of Army medicine? How similar or different is Army medicine from medicine in the other military branches? Is the current force structure consistent with these goals? My research suggests internal tensions exist within the structure of Army medicine (and presumably medicine in the Air Force and Navy as well). While I suggest military medicine may be a unique profession, the current force structure within military medicine does not support this claim. If the primary mission for Army medicine is to conserve the fighting strength and provide health care for soldiers, is training physicians in specialties that do not care for soldiers in the service's best interest? If the military trains as it fights to deploy and serve our nation during a time of war, should not the same mantra apply to military physicians? If medicine across the Army, Navy, and Air Force share military unique similarities, perhaps they can combine into a unique profession of military medicine.

Examination of military institutions can clarify the jurisdictional boundaries a unique military profession may seek to claim. It can help define the difference between

“military physicians” and “physicians in the military” and align organizational structure and culture to afford the former instead of the latter. This distinction may help restructure the medical force and create unity rather than dissension among the ranks. Restructuring of the organization can help break current tensions between specialties and undesired feedback loops. It allows creation of new incentive structures that promote characteristics of professions to include effectiveness based on individual analysis of situations and applying judgment based on expert knowledge. Restructuring may change which military specialties are sponsored on active duty. Does the military require pediatricians, geriatricians, obstetricians, or radiologists within the active duty ranks? Force reorganization can alter relationships with civilian communities and hospitals as the military would require increased local support if not independently providing services.

Third, further research should extend and evaluate military medicine as it relates to the military Reserves and the National Guard. Are physicians in the National Guard or the Reserves “military physicians” or “physicians in the military”? Do different standards apply to those who work primarily as civilian physicians and transition to work as military physicians only during times of war or national emergency? Because war and emergency bring surgical problems, is it appropriate to limit the Reserve to only medical providers with surgical specialties? While primary care providers are always in demand, is it appropriate to allow primary care physicians to leave their civilian patient population for a prolonged period of time during times of war by accepting them into the Reserves? While not addressed in this study, any changes in how military medicine is structured or interpreted must consider implications for military medical providers not on active duty.

Finally, in highlighting tensions military physicians experience by bridging two professions, this research may increase awareness of potential tensions other military dual professionals experience. Military lawyers and military chaplains, like military physicians, may experience tensions between two professions. Can their tensions be summarized and explained by mixed agency? What institutions govern how chaplains and lawyers overcome tensions? If military medicine campaigned for jurisdiction as a unique profession, is there a basis for military lawyers or chaplains to make similar claims?

GLOSSARY

Direct Commission. A process in which individuals are granted acceptance into the military as officers without a formal commissioning source or military education. Individuals enter the military as officers after completing civilian education.

Dual Loyalty. The concept of representing two different entities, each with their own interests, at the same time.

Military role specific ethic. Concept used to describe situations where military physicians should place military priorities above patient priorities

Mixed Agency. The concept of representing two different entities, each with their own interests, at the same time.

Profession. A type of work entailing tailored use of abstract knowledge, which requires extensive training or education to obtain, and is associated with high status in a social hierarchy.

Professionalization. The process by which groups adopt organizational constructs associated with professions (governing associations, licensing requirements, ethics codes, etc.) to gain recognition as professions.

Profile. A document used by the US Army for physicians to provide formalized recommendations about medical limitations for individual soldiers to their commanders. DA Form 3349

RESPECT-mil. An Army program designed to screen soldiers for depression and PTSD in primary care settings, reduce stigma of behavioral health care, and promote aggressive treatment of behavioral health problems to improve soldier functioning.

Sick Slip. A handwritten slip used by military commanders approving absence of formation to see health care providers and for health care providers to provide short-term recommendations about medical limitations back to commanders. DD Form 689.

Taping. An Army procedure that uses specific circumference measurements, determined by gender, to approximate a soldier's body fat percentage.

Triage. A process of sorting patients based on the urgency of medical needs.

APPENDIX A

PRINCIPLES OF MEDICAL ETHICS

Preamble

The medical profession has long subscribed to a body of ethical statements developed primarily for the benefit of the patient. As a member of this profession, a physician must recognize responsibility to patients first and foremost, as well as to society, to other health professionals, and to self. The following Principles adopted by the American Medical Association are not laws, but standards of conduct which define the essentials of honorable behavior for the physician.³⁹

Principles of Medical Ethics

- I. A physician shall be dedicated to providing competent medical care, with compassion and respect for human dignity and rights.
- II. A physician shall uphold the standards of professionalism, be honest in all professional interactions, and strive to report physicians deficient in character or competence, or engaging in fraud or deception, to appropriate entities.
- III. A physician shall respect the law and also recognize a responsibility to seek changes in those requirements which are contrary to the best interests of the patient.
- IV. A physician shall respect the rights of patients, colleagues, and other health professionals, and shall safeguard patient confidences and privacy within the constraints of the law.
- V. A physician shall continue to study, apply, and advance scientific knowledge, maintain a commitment to medical education, make relevant information available to patients, colleagues, and the public, obtain consultation, and use the talents of other health professionals when indicated.
- VI. A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide medical care.
- VII. A physician shall recognize a responsibility to participate in activities contributing to the improvement of the community and the betterment of public health.
- VIII. A physician shall, while caring for a patient, regard responsibility to the patient as paramount.
- IX. A physician shall support access to medical care for all people.

³⁹Adopted June 1957; revised June 1980; revised June 2001 (AMA 2001)

APPENDIX B

APPLYING ETHICAL PHILOSOPHY TO RESOLVE TENSIONS

Ethical arguments, often competing, underlie many tensions in military medicine. Ethical dilemmas occur when a person must make a choice between two actions, both of which are “correct” actions (Kidder 2009; Kem 2005). The “correctness” in competing actions may come from differing ethical theories. This appendix briefly introduces basic ethical theories. The competing nature of theories in certain situations can create tension in individuals attempting to act morally.

Principals Based Ethics–Deontological Ethics

Principals based ethics suggests people should act according to agreed upon values and principles (Kem 2006; Pojman and Fieser 2011). Immanuel Kant introduced the idea of the categorical imperative, “Act only according to that maxim by which you can at the same time will that it would become universal law” (Pojman and Fieser 2011). He suggests that by applying reason, one can act in way that should become universally accepted by all, creating universal principals. It then becomes a person’s duty to adhere to universally applicable principals. Thomas Hobbes proposed social contract theory, agreeing that reason and experience can help identify natural laws, such as, it is wrong to kill an innocent man or it is wrong to disobey the law, but written laws should act to benefit society (Kem 2006). One weakness with principles based ethics is it allows no exceptions. In principals based ethics, following the rules is more important than the consequences produced by adhering to the rules.

Howe suggests military physicians face ethical dilemmas under two conditions: when a physician's ethical choices conflict with the law or regulations, or law or regulations do not address ethical choices. Thus, he suggests principles-based ethics are a lead driver in tensions military physicians face. Other scholars echo the importance of rules following in the military through obedience and following command orders (Sidel and Levy 2003; Bond 2009).

Principals based ethics also influences medical practice. Several believe the ethos of medicine maintains universal principals to include autonomy and beneficence in patient care as well as striving to minimize human suffering (Sidel and Levy 2003; International Dual Loyalty Working Group 2008; Nathanson 2008). Contrary to Howe's argument, others suggest physicians face ethical dilemmas in situations where their actions may favor the common good of society, but only by violating universal medical principles (Benatar and Upshur 2008). This leads into the concept of consequence-based ethics, which is discussed next.

Consequence Based Ethics–Utilitarianism

Consequence-based ethics, or utilitarianism, suggests ethical decisions should be made based on the likely results of the actions. "Decisions are judged by their consequences depending on the results to be maximized—security, happiness, pleasure, dignity, and the like (Fredrickson 1997, 167-168). The rightness or wrongness of an action results from the goodness or badness that results from it; the ends justify the means (Pojman and Fieser 2011). Utilitarianism is a relatively simple concept, universally applicable, and can promote central principles, such as minimizing suffering. Utilitarian ethics provides basis for actions that may deviate from laws or regulations.

There are several objections to utilitarianism, which are beyond the scope of this summary. However, a couple important weaknesses include the desire to maximize multiple variables (Pojman and Fieser 2011), and time period in which overall good is calculated (Matthews 2008). Since utilitarianism seeks to maximize good for the greatest number of people, conflict may arise in comparing what is the greatest good (albeit for a few people) compared to a lesser good (albeit for a larger number of people). How do these equations compare? Likewise, to what degree must one evaluate the effects of an action? First order effects may produce different outcomes than second or third order effects (Matthews 2008).

Utilitarian arguments are commonly used to justify actions such as torture, sacrificing lives, or specific military actions (use of the atomic bomb). In medicine, utilitarian arguments may guide distribution of resources in socialized health care systems and govern triage on the battlefield. They govern public health principals in balancing benefits to society over benefits to the individual (Benatar and Upshur 2008). Those whom argue physicians are accountable for the consequences of their actions (Sidel and Levy 2003) to override following rules, employ a utilitarian argument to justify actions.

Virtue-Based Ethics

Virtue-based ethics, unlike the previously discussed theories, focuses less on what actions people should take, but more on what kind of people individuals should be. (Kem 2006; Pojman and Fieser 2011). It places importance on people to do the right things for the right reasons (Pojman and Fieser 2011). Virtue-based theory strives to develop good character traits among people and has foundations in Aristotle's *Nicomachean Ethics*.

Virtue-based theory contrasts with action-based theories (principal-based and consequentialist-based), which judge people based on their actions or properly following rules instead of the virtue of their character or intentions (Pojman and Fieser 2011). There are important relationships between virtue-based ethics and action-based ethics, but in action-based ethics, virtues are secondary to the actions themselves. For example, virtues are derived from duties and the concept of nonmaleficence comes from the duty to do no harm (Pojman and Fieser 2011).

Ethics instruction at the Command and General Staff College, an educational gateway for career military officers, promotes virtue-based ethics as a superior theory and desired approach for military officers (Bell 2013). The United States Army strives to develop leaders of character and prides itself as being a values-based institution (Kem 2006). However, virtue alone provides little guidance on actions, and is best used in conjunction with action-based ethics (Pojman and Fieser 2011). Similarly, medicine promotes multiple virtuous traits, but they are most evident as qualities derived from principles governing the practice of medicine than as character traits across practitioners.

Just War Theory

There are several theories governing the ethics of war and peace, of which just war theory is the most influential (Orend 2008). Alternative theories include realism and pacifism. Realism suggests there is no morality in war and ethics does not apply to world politics; pacifism suggests war is always wrong; alternative solutions always exist (Orend 2008). Just war theory bridges extremes suggesting at times there are ethical reasons for war, which can be governed by morality.

Just war theory consists of three parts, *jus ad bellum*, *jus in Bello*, and *jus post bellum*. *Jus ad bellum* addresses reasons for going to war and suggests war is ethically permissible provided it is being fought for a just cause, under the right intention, with decisions for war being made by the proper authority. It further demands war is an option of last resort, guarantees a probability of success, and the proportionality of benefits gained through war must exceed the costs. In order to be just, one must satisfy all criteria before engaging in war.

Jus in Bello refers to the conduct of war, during battle. It also entails several rules, which include obeying international laws on prohibited weapons, discrimination with recognition of non-combatant immunity, and benevolent treatment of prisoners of war. It mandates the use of proportionality, the force used must be proportional to the ends sought. Additional requirements include forbidding reprisals and using weapons or means that are evil in themselves.

Jus post bellum governs justice with the termination of war and the transition towards peace. It suggests peace settlements are reasonable and rights are vindicated, especially the rights of those whom were violated to justify the war in the first place. Discrimination between opposing leaders, military and civilian can help guide punishments to prevent punishing innocent civilians. Compensation for damage and rehabilitation important considerations. Ultimately, an ethical exit-strategy is necessary to end war and enable lasting peace (Orend 2008).

Militaries are agents that conduct war, and thus cannot endorse pacifism. Surely, there may be a valid reason for war, or militaries would not exist. On the other hand,

medicine seems to attract pacifists (Gross 2008). Once such suggestion regarding medical pacifism entails:

It is everywhere a recognized and humane principle that prevention should be preferred to cure. By withholding services to the Armed Forces before and during war, by declining to examine and inoculate recruits, by refusing sanitary advice and the training and command of ambulances, clearing stations, medical transport, and hospitals, the doctors could so cripple the efficiency of the staff and aggravate the difficulties of campaign and so damage the morale of troops that war would become almost unthinkable. (Sidel and Levy 2003, 309)

Even Sidel and Levy, with their pacifist stance, acknowledge “it may be an invalid assumption that the war effort of all belligerents would cease if no medical support were provided” (Sidel and Levy 2003, 309). Just war theory may help physicians reconcile pacifist tendencies by reassuring participation in a war through health care is okay if the war is justified. However, ultimately it the government’s job to determine just causes to engage the military in war, not individual service members (Hartle 2004). One military physician, after receiving a commission as a physician in the all-volunteer American military, refused to deploy in in the 1990 Persian Gulf War on the grounds the war was unjust and immoral and was subsequently imprisoned for failure to obey a lawful order (Sidel and Levy 2003). Others argue that as long as war exists, regardless of its justness, people suffer and die, suggesting it would be unethical for medical providers to ignore the human suffering and avoid efforts to care for the sick and wounded (Rascona 2003).

Interrelationship of Ethical Theories

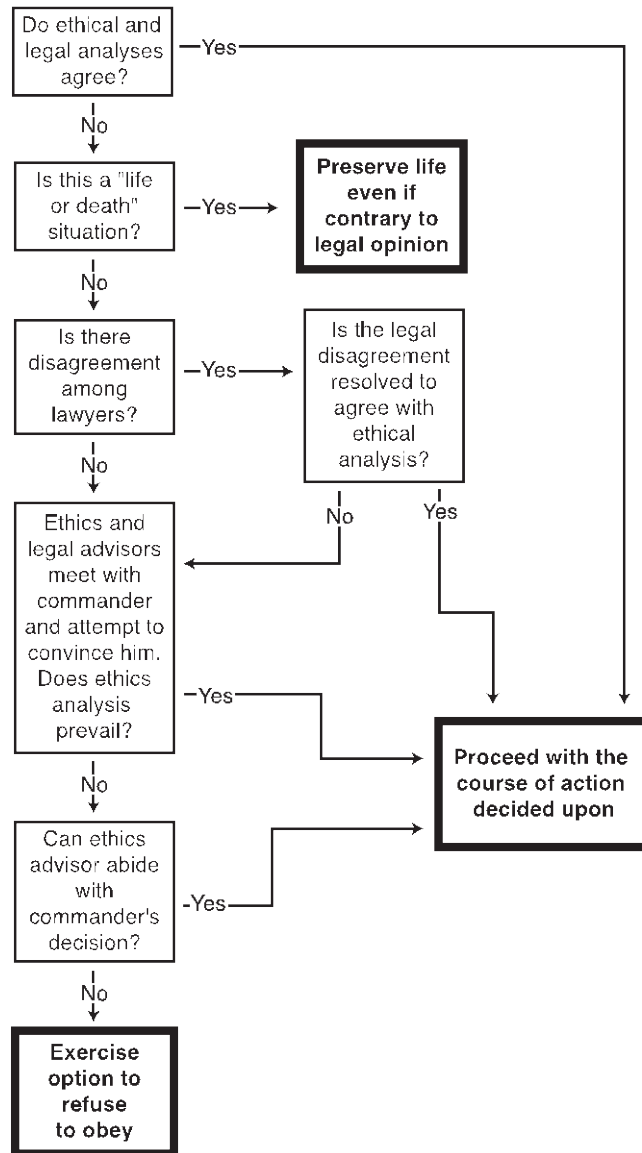
Each theory has strengths and weakness, but no singular theory adequately addresses how individuals should be or act in all situations. Just war theory provides rules to follow to maximize utilitarian benefit while addressing the virtue and intent behind military action. Ethical theories come into greatest play in influencing actions when

ethical dilemmas occur, or situations when an individual must choose between two correct actions. Common ethical dilemmas occur when individuals must choose between truth vs. loyalty, individuals vs. communities, short term vs. long term, and trust vs. loyalty (Kem 2006; Kidder 2009). Military physicians commonly face dilemmas between individuals and communities in addition to competing loyalties.

Army models for ethical decision making encourage soldiers to define the problem, know relevant rules, develop and evaluate courses of action to solve the problem, and then choose a course of action the best represents the Army values (Kem 2006). Ethical decision making entails a combined principals-based and virtue-based approach. More recent discussion encourages military ethical decision making models to include all basic ethical theories, creating an ethical triangle (Kem 2006). After defining a problem and verifying the true existence of an ethical dilemma, one can list potential actions and compare those actions against all three basic ethical theories to determine the best course of action. Current recommendations include first looking at rules governing actions and then potential consequences to include second and third order effects. Finally, virtue based ethics serves as an integrating approach to balance options (Kem 2006). Likewise, one may discover even better courses of action while considering options using the systematic process.

APPENDIX C

ALGORITHM TO SOLVE CONFLICTS BETWEEN ETHICS AND THE LAW



Source: Thomas E. Beam and Edmund G. Howe, "A Proposed Ethic for Military Medicine," in *Textbooks of Military Medicine: Military Medical Ethics*, Vol 2, ed. Dave E. Lounsbury and Robert F. Bellamy (Falls Church, VA: Office of the Surgeon General, 2003), 861.

APPENDIX D

ARMY PROFILE FORM

PHYSICAL PROFILE									
For use of this form, see AR 40-501; the proponent agency is the Office of the Surgeon General.									
1. MEDICAL CONDITION: (Description in lay terminology) <input type="checkbox"/> INJURY? Or <input type="checkbox"/> ILLNESS/DISEASE?				2. CODES (Table 7-2 AR 40-501)		3. Temporary Permanent		P U L H E S	
								<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
4. PROFILE TYPE								YES	NO
a. TEMPORARY PROFILE (Expiration date YYYYMMDD) (Limited to 3 months duration)								<input type="checkbox"/>	<input type="checkbox"/>
b. PERMANENT PROFILE (Reviewed and validated with every periodic health assessment or after 5 years from the date of issue)								<input type="checkbox"/>	<input type="checkbox"/>
5. FUNCTIONAL ACTIVITIES THAT EVERY SOLDIER REGARDLESS OF MOS MUST BE ABLE TO PERFORM. IF SOLDIER CANNOT PERFORM ANY ONE OF THESE TASKS, THEN THE PULHES MUST CONTAIN AT LEAST ONE "3" AND SOLDIER MUST BE REFERRED TO A MEB. CAN THE SOLDIER:									
FUNCTIONAL ACTIVITY:								YES	NO
a. Carry and fire individual assigned weapon?								<input type="checkbox"/>	<input type="checkbox"/>
b. Evade direct and indirect fire?								<input type="checkbox"/>	<input type="checkbox"/>
c. Ride in a military vehicle for at least 12 hours per day?								<input type="checkbox"/>	<input type="checkbox"/>
d. Wear a helmet for at least 12 hours per day?								<input type="checkbox"/>	<input type="checkbox"/>
e. Wear body armor for at least 12 hours per day?								<input type="checkbox"/>	<input type="checkbox"/>
f. Wear load bearing equipment (LBE) for at least 12 hours per day?								<input type="checkbox"/>	<input type="checkbox"/>
g. Wear military boots and uniform for at least 12 hours per day?								<input type="checkbox"/>	<input type="checkbox"/>
h. Wear protective mask and MOPP 4 for at least 2 continuous hours per day?								<input type="checkbox"/>	<input type="checkbox"/>
i. Move 40lbs (for example, duffle bag) while wearing usual protective gear (helmet, weapon, body armor and LBE) at least 100 yards?								<input type="checkbox"/>	<input type="checkbox"/>
j. Live in an austere environment without worsening the medical condition?								<input type="checkbox"/>	<input type="checkbox"/>
6. APFT		YES	NO	ALTERNATE APFT (Fill out if unable to do APFT run otherwise N/A)		N/A	YES	NO	
2 MILE RUN		<input type="checkbox"/>	<input type="checkbox"/>	APFT WALK		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
APFT SIT-UPS		<input type="checkbox"/>	<input type="checkbox"/>	APFT SWIM		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
APFT PUSH UPS		<input type="checkbox"/>	<input type="checkbox"/>	APFT BIKE		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. DOES THE SOLDIER MEET RETENTION STANDARDS IAW CHAPTER 3 AR 40-501?									
YES <input type="checkbox"/> NEEDS MMRB NO <input type="checkbox"/> NEEDS MEB									
8. FUNCTIONAL LIMITATIONS AND CAPABILITIES AND OTHER COMMENTS:									
<input type="checkbox"/> This temporary profile is an extension of a temporary profile first issued on _____									
9. NAME, GRADE & TITLE OF PROFILING OFFICER					10. SIGNATURE			11. DATE (YYYYMMDD)	
12. NAME & GRADE OF APPROVING AUTHORITY					13. SIGNATURE			14. DATE (YYYYMMDD)	
15. Commanders can access the electronic profiles of Soldiers in their unit(s) by going to http://www.mods.army.mil/ and clicking on eProfile in the list of applications. Commanders will be required to register and be approved in eProfile before they can gain access to profiles.									
16. PATIENT'S IDENTIFICATION					17. HOSPITAL OR MEDICAL FACILITY				
a. NAME: (Last, First)									
b. GRADE/RANK:									
c. SSN:									
d. UNIT:									
					18. PROFILING OFFICER E-MAIL				

PHYSICAL PROFILE - PAGE 2 (OPTIONAL)	
PATIENT'S NAME	DATE (YYYYMMDD)
CONTINUATION (From page 1, Item 8)	

APPENDIX E INDIVIDUAL SICK SLIP

INDIVIDUAL SICK SLIP <input type="checkbox"/> ILLNESS <input type="checkbox"/> INJURY		DATE
LAST NAME - FIRST NAME - MIDDLE INITIAL OF PATIENT		ORGANIZATION AND STATION
SERVICE NUMBER/SSN	GRADE/RATE	
UNIT COMMANDER'S SECTION		MEDICAL OFFICER'S SECTION
IN LINE OF DUTY		IN LINE OF DUTY
REMARKS		DISPOSITION OF PATIENT <input type="checkbox"/> DUTY <input type="checkbox"/> QUARTERS <input type="checkbox"/> SICK BAY <input type="checkbox"/> HOSPITAL <input type="checkbox"/> NOT EXAMINED <input type="checkbox"/> OTHER (Specify):
		REMARKS
SIGNATURE OF UNIT COMMANDER		SIGNATURE OF MEDICAL OFFICER

DD FORM 689, MAR 63

PREVIOUS EDITIONS ARE OBSOLETE

Reset

REFERENCE LIST

- Abbott, Andrew. 1988. *The systems of profession: An essay on the division of expert labor*. Chicago, IL: The University of Chicago Press.
- Adams, Marcus P. 2008. Triage priorities and military physicians. In *Physicians at War: The Dual-Loyalties Challenge*, ed. Fritz Allhoff, 215-36. New York, NY: Springer Science + Business Media.
- Adams, Stephen M., and Paul D. Knowles. 2007. Evaluation of a first seizure. *American Family Physician* 75, no. 9: 1342-1347.
- Allhoff, Fritz. 2008a. Physician involvement in hostile interrogations. In *Physicians at War: The Dual-Loyalties Challenge*, ed. Fritz Allhoff, 91-104. New York, NY: Springer Science + Business Media.
- . 2008b. Physicians at war: The dual-loyalties challenge. In *Physicians at War: The Dual-Loyalties Challenge*, ed. Fritz Allhoff, 3-11. New York, NY: Springer Science + Business Media.
- AMEDD Distributed Learning. 2011. *Medical profiles*. Online training module. Course number 081SDL10-00CDL-0003. Completed by Author on November 28, 2011. Available through the Army Training Requirements and Resources System (ATRRS). <https://www.lms.army.mil/Saba/Web/Main> (accessed October 26, 2013).
- American Board of Medical Specialties. 2013. Who we are and what we do. *American Board of Medical Specialties*. http://www.abms.org/About_ABMS/who_we_are.aspx (accessed October 7, 2013).
- American Medical Association. 1945. Principles of medical ethics. *Journal of Clinical Psychology* 1, no. 4: 336-342.
- . 2001. Principles of medical ethics. *American Medical Association*. <http://www.ama-assn.org/ama/pub/physician-resources/medical-ethics/code-medical-ethics/principles-medical-ethics.page>? (accessed October 7, 2013).
- . 2013. The founding of the AMA. *American Medical Association*. <http://www.ama-assn.org/ama/pub/anout-ama/our-history/the-founding-of-ama.page>? (accessed October 7, 2013).
- American Psychiatric Association. 2013. *Diagnostic and statistical manual of mental disorders*. 5th ed. Arlington, VA: American Psychiatric Publishing.

- Apuzzo Matt, and Adam Goldman. 2013. Aaron Alexis heard voices: Navy Yard shooter was treated for mental health issues, officials say. *The Huffington Post*. http://www.huffingtonpost.com/2013/09/17/aaron-alexis-heard-voices_n_3940187.html (accessed October 8, 2013).
- Ascheim, Deborah D., and Andrea Gittleman. 2011. Divided loyalties of health professionals: Professional standards and military duty. *Case Western Reserve Journal of International Law* 43, no. 3: 625-30.
- Barber, Bernard. 1963. Some problems in the sociology of professions. In *The Professions in America*, ed. Kenneth S. Lynn, 15-34. Boston, MA: Houghton Mifflin.
- Beam, Thomas E. 2003. Medical ethics on the battlefield: The crucible of military medical ethics. In *Textbooks of Military Medicine: Military Medical Ethics*, Vol. 2, ed. Dave E. Lounsbury and Robert F. Bellamy, 369-402. Falls Church, VA: Office of the Surgeon General.
- Beam, Thomas E., and Edmund G. Howe. 2003. A proposed ethic for military medicine. In *Textbooks of Military Medicine: Military Medical Ethics*, Vol. 2, ed. Dave E. Lounsbury and Robert F. Bellamy, 851-865. Falls Church, VA: Office of the Surgeon General.
- Bell, Daniel M. 2013. Class lecture. Command and General Staff College, Fort Leavenworth, KS.
- Benatar, Solomon R., and Ross E. G. Upshur. 2008. Dual loyalty of physicians in the military and in civilian life. *American Journal of Public Health* 98, no. 12: 2161-2167.
- Boden, S. D., D. O. Davis, T. S. Dina, N. J. Patronas, and S. W. Wiesel. 1990. Abnormal magnetic-resonance scans of the lumbar spine in asymptomatic subjects. A prospective investigation. *The Journal of Bone and Joint Surgery* 72, no. 3: 403-408.
- Bond, Kevin Michael. 2009. *Physician as military officer: Conflicts in professional duties*. Knoxville, TN: TRACE: Tennessee Research and Creative Exchange http://trace.tennessee.edu/utk_graddis/12/ (accessed October 8, 2013).
- Braun, D. L., S. R. Sunday, and K. A. Halmi. 1994. Psychiatric comorbidity in patients with eating disorders. *Psychological Medicine* 24, no. 4: 859-867.
- Casey Jr., George W. 2009. Advancing the Army professional military ethic. *Joint Forces Quarterly* no. 54: 14-15.

- Chou, Roger, Amir Qaseem, Vincenza Snow, Donald Casey, J. Thomas Cross Jr., Paul Shekelle, and Douglas K. Owens. 2007. Diagnosis and treatment of low back pain: A joint clinical practice guideline from the American College of Physicians and the American Pain Society. *Annals of Internal Medicine* 147, no. 7: 478-491. <http://annals.org/article.aspx?articleid=736814> (accessed October 9, 2013).
- Combined Arms Center. 2011. *The Army profession: 2012 after more than a decade of conflict*. Blackwell, OK: Schatz Publishing Group.
- Connolly, William E. 2011. *A world of becoming*, Durham, NC: Duke University Press.
- Couturier, Jennifer. 2004. Psychiatric comorbidity in eating disorders. *The Canadian Journal of Eating Disorders*: 81-85.
- Darnall Department of Orthopedics and Rehabilitation. 2011. *Magnetic resonance imaging (MRI): Guidelines for non-acute musculoskeletal conditions*. Fort Hood, TX: Darnall Army Medical Center. http://www.crdamc.amedd.mil/pao/_files/brochures/MRI-Booklet-Print-Spread.pdf (accessed October 8, 2013).
- Deyo, Richard A, Sohail K. Mirza, Judith A. Turner, and Brook I. Martin. 2009. Overtreating chronic back pain: Time to back off?" *Journal of the American Board of Family Medicine* 22, no. 1: 62-68. <http://www.jabfp.com/content/22/1/62.full> (accessed October 9, 2013).
- Drug Enforcement Administration. 2013. *Tramadol*. http://www.deadiversion.usdoj.gov/drug_chem_info/tramadol.pdf (accessed October 8, 2013).
- Eland, I. A., E. P. van Puijenbroek, M. J. Sturkenboom, J. H. Wilson, and B. H. Stricker. 1999. Drug-associated acute pancreatitis: Twenty-one years of spontaneous reporting in the Netherlands. *American Journal of Gastroenterology* 94, no. 9: 2417-22.
- Ficarrotta, J. Carl. 1997. Are military professionals bound by a higher moral standard? *Armed Forces and Society* 24, no. 1: 59-75.
- Fitzgerald, William. 2005. An ethical thought paper. An assignment for the United States Army Sergeants Major Academy. 15 October 2005.
- Fredrickson, H. George. 1997. *The spirit of public administration*. San Francisco, CA: Jossey-Bass Publishers.
- Frisina, Michael E. 2008. Guidelines to prevent the malevolent use of physicians in war. In *Physicians at War: The Dual-Loyalties Challenge*, ed. Fritz Allhoff, 39-52. New York, NY: Springer Science + Business Media.

- Gibson, Clark C., Krister Andersson, Elinor Ostrom, and Sujai Shivakumar. 2009. *The samaritan's dilemma: The political economy of developmental aid*. Oxford: Oxford University Press.
- Gross, Michael L. 2008. Is medicine a pacifist vocation or should doctors help build bombs? In *Physicians at War: The Dual-Loyalties Challenge*, ed. Fritz Allhoff, 151-166. New York, NY: Springer Science + Business Media.
- Hartle, Anthony E. 2003. The profession of arms and the officer corps. In *Textbooks of Military Medicine: Military Medical Ethics*, Vol. 1, ed. Dave E. Lounsbury and Robert F. Bellamy, 129-56. Falls Church, VA: Office of the Surgeon General.
- Hartle, Anthony E. 2004. *Moral issues in military decision making*, 2nd ed. Lawrence, KS: University Press of Kansas.
- Howe, Edmund. 2003a. Mixed agency in military medicine: Ethical roles in conflict. In *Textbooks of Military Medicine: Military Medical Ethics*, Vol. 1, ed. Dave E. Lounsbury and Robert F. Bellamy, 331-60. Falls Church, VA: Office of the Surgeon General.
- . 2003b. Counterpoint—a response to Drs. Sidel and Levy. In *Textbooks of Military Medicine: Military Medical Ethics*, Vol. 1, ed. Dave E. Lounsbury and Robert F. Bellamy, 312-20. Falls Church, VA: Office of the Surgeon General.
- Huntington, Samuel P. 1981. *The soldier and the state: The theory and politics of civil-military relations*. Cambridge, MA: Belknap Press.
- International Dual Loyalty Working Group. 2008. Dual loyalty and human rights in health professional practice: Proposed guidelines and institutional mechanisms. In *Physicians at War: The Dual-Loyalties Challenge*, ed. Fritz Allhoff, 15-38. New York, NY: Springer Science + Business Media.
- Isaac, Jeffrey C. 1987. Beyond the three faces of power: A realist critique. *Polity* 20, no 1: 4-31.
- Kem, Jack D. 2006. The use of the 'ethical triangle' in military ethical decision making. *Public Administration and Management* 11, no. 1: 22-43.
- Kidder, Rushworth M. 2009. *How good people make tough choices*. New York, NY: HarperCollins e-books. Kindle Electronic Edition.
- List, Justin M. 2008. Medical neutrality and political activism: Physicians' roles in conflict situations. In *Physicians at War: The Dual-Loyalties Challenge*, ed. Fritz Allhoff, 237-53. New York, NY: Springer Science + Business Media.

- Lunsroth, John. 2008. Torture and the regulation of the health care professions. In *Physicians at War: The Dual-Loyalties Challenge*, ed. Fritz Allhoff, 127-47. New York, NY: Springer Science + Business Media.
- Luvaas, Jay. 1986. Frederick the Great: The education of a great captain. In *The John Biggs Cincinnati Lectures in Military Leadership and Command 1986*, ed. Henry S. Bausum, 23-37. Lexington, VA: The VMI Foundation.
- Madden, William, and Brian S. Carter. 2003. Physician-soldier: A moral profession. In *Textbooks of Military Medicine: Military Medical Ethics*, Vol. 1, ed. Dave E. Lounsbury and Robert F. Bellamy, 269-91. Falls Church, VA: Office of the Surgeon General.
- Marks, Jonathan H. 2008. Dual disloyalties: Law and medical ethics at Guantanamo Bay. In *Physicians at War: The Dual-Loyalties Challenge*, ed. Fritz Allhoff, 53-73. New York, NY: Springer Science + Business Media.
- Matthews, Richard. 2008. Indecent medicine revisited: Considering physician involvement in torture. In *Physicians at War: The Dual-Loyalties Challenge*, ed. Fritz Allhoff, 105-25. New York, NY: Springer Science + Business Media.
- McGinnis, Michael D. 2011. An introduction to IAD and the language of the Ostrom workshop: A simple guide to a complex framework. *The Policy Studies Journal* 39, no. 1: 169-183.
- McKeon, Joseph F., James L. Persson, James McGhee, and Martin Quattlebaum. 2009. A review of the US Army experience using selective serotonin reuptake inhibitors in aircrew. National Technical Information Service. <http://www.ntis.gov/search/product.aspx?ABBR=ADA567917> (accessed October 7, 2013).
- Merriam-Webster. *An Encyclopedia Britannica Company*. <http://www.merriam-webster.com/dictionary> (accessed October 7, 2013).
- Military Health System Learning Portal. 2011a. *IDES:01–Referral of Service Members into the IDES. IDES:02–Development of MEB Narrative Summaries. IDES:03–Correction of MEB Narrative Summaries. IDES:04–Evaluation of Disability Cases*. Online training module. Released October 17, 2011. Completed by Author on May 5, 2012. <https://mhslearn.csd.disa.mil/ilearn/en/learner/mhs/portal/home.jsp> (accessed October 26, 2013).
- Miller, Seumas, and Michael J. Selgelid. 2008. Ethics and the dual-use dilemma in the life sciences. In *Physicians at War: The Dual-Loyalties Challenge*, ed. Fritz Allhoff, 195-211. New York, NY: Springer Science + Business Media.
- Moten, Matthew. 2010. The Army officers' professional ethic—past, present, and future. Professional Military Ethics Monograph Series. Carlisle, PA: Strategic Studies

- Institute. <http://www.strategicstudiesinstitute.army.mil/pdf/PUB966.pdf> (accessed October 27, 2013).
- Nathanson, Vivienne. 2008. The case against doctor involvement in weapons design and development. In *Physicians at War: The Dual-Loyalties Challenge*, ed. Fritz Allhoff, 167-177. New York, NY: Springer Science + Business Media.
- North, M. 2002. Greek medicine. www.nlm.nih.gov/hmd/greek/greek_oath.html (accessed March 13, 2013).
- Orend, Brian. 2008. War. *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta. <http://plato.stanford.edu/archives/fall2008/entries/war/> (accessed October 7, 2013).
- Ostrom, Elinor. 2010. Beyond markets and states: Polycentric governance of complex economic systems. *The American Economic Review* 100: 641-672.
- Oxman, Thomas. 2008. *RESPECT-Mil: Primary care clinician's manual*. http://www.pdhealth.mil/respect-mil/downloads/pcc_final.pdf (accessed October 27, 2013).
- Parish, John A. 1972. *12, 20, And 5: A doctor's year in Vietnam*. New York, NY: Doubleday Publishing.
- Pearce, Gervase, and Peter Saul. 2008. Toward a framework for military health ethics. In *Physicians at War: The Dual-Loyalties Challenge*, ed. Fritz Allhoff, 75-88. New York, NY: Springer Science + Business Media.
- Perez Jr., Celestino. 2009. The embedded morality in FM 3-24 *Counterinsurgency*. *Military Review*: 24-32.
- . 2012. The soldier as lethal warrior and cooperative political agent: On the soldier's ethical and political obligations toward the indigenous other. *Armed Forces and Society* 38, no. 2: 177-204.
- Pojman, Louis P., and James Fieser. 2011. *Ethics: Discovering right and wrong*. 7th ed. Boston, MA: Wadsworth, Cengage Learning. Kindle Electronic Edition.
- Rascona, Dominick R. 2003. The moral obligation of the United States military medical service. In *Textbooks of Military Medicine: Military Medical Ethics*, Vol. 1, ed. Dave E. Lounsbury and Robert F. Bellamy, 320-325. Falls Church, VA: Office of the Surgeon General.
- Robertson, Cassandra Burke. 2011. Organizational management of conflicting professional identities. *Case Western Reserve Journal of International Law* 43: 603-23.

- Sidel, Victor W., and Barry S. Levy. 2003. Physician-soldier: A moral dilemma? In *Textbooks of Military Medicine: Military Medical Ethics*, Vol. 1, ed. Dave E. Lounsbury and Robert F. Bellamy, 293-329. Falls Church, VA: Office of the Surgeon General.
- Snider, Don M. 2005. The U.S. Army as a profession. In *The Future of the Army Profession*. 2nd ed. ed. Lloyd J. Matthews, 3-38. Boston, MA: McGraw Hill Custom Publishing.
- . 2012. Once again, the challenge to the U.S. Army during a defense reduction: To remain a military profession. Professional Military Ethics Monograph Series. Carlisle, PA: Strategic Studies Institute. <http://www.strategicstudiesinstitute.army.mil/pdf/PUB1097.pdf> (accessed October 27, 2013).
- Swan, Kenneth Girvan, and Kenneth G. Swan Jr. 1996. Triage: The past revisited. *Military Medicine* 161 no. 8: 448-52.
- United States Army. 1989. Army Regulation 40-501, *Standards of medical fitness*. Washington, DC: Department of the Army.
- . 2011. Army Regulation 40-501, *Standards of medical fitness*. Washington, DC: Department of the Army. (Rapid Access Revision 2011, original publication 14 December 2007)
- . 2012a. Army Regulation 600-85, *The Army substance abuse program*. Washington, DC: Department of the Army.
- . 2012b. Army Doctrine Publication 6-0, *Mission command*. Washington, DC: Department of the Army.
- United States Central Command (CENTCOM). 2012. PPG-TAB A: Amplification of the minimal standards of fitness for deployment to the CENTCOM AOR; to Accompany MOD eleven to USCENTCOM individual protection and individual/unit deployment policy. <http://pec.ha.osd.mil/files/MOD%2011%20Tab%20A%20%20Update%2027Mar12.pdf> (accessed October 8, 2013).
- United States Training and Doctrine Command (TRADOC). 2010. An Army white paper: The profession of arms. [http://cape.army.mil/repository/ProArms/Profession White%20Paper%208%20Dec%2010.pdf](http://cape.army.mil/repository/ProArms/Profession%20White%20Paper%208%20Dec%2010.pdf) (accessed October 7, 2013).
- Van Leusden A. J., and M. J. J. Hoejenbos. 2006. Moral dilemmas in military health care. In *Military Ethics: The Dutch Approach, A Practical Guide*, ed. Th. A. van Baarda and D. E. M. Verweij, 193-215. Leiden, The Netherlands: Koninklijke Brill NV. English Translation by Joanna MacDaniel, Kate Walsarie Wolff-Hill and Derek Suchard.

- Veatch, Robert M., and Carol G. Mason. 1987. Hippocratic vs. Judeo-Christian medical ethics: Principles in conflict. *Journal of Religious Ethics* 15, no. 1: 86-106.
- Weisfield, Neil E., Victoria D. Weisfield, and Catharyn T. Liverman. 2008. Military medical ethics: Issues regarding dual loyalties: Workshop summary. Washington, DC: The National Academies Press. http://www.nap.edu/openbook.php?record_id=12478 (accessed October 9, 2013).
- Woodson, Justin. 2005. Flight surgeon's aeromedical checklists. Department of Aeromedical Activity. http://usasam.amedd.army.mil/_AAMA/files/ArmyAPLs.pdf (accessed October 2012)
- World Medical Assembly. 2012. WMA regulations in times of armed conflict and other situations of violence. *World Medical Association Policies*. <http://www.wma.net/en/30publications/10policies/a20/index.html> (accessed October 9, 2013).